The Resonator

Official Newsletter of The Fair Lawn (NJ) Amateur Radio Club

Volume 8, Number 2 www.FairLawnARC.org February 2023.

Member Profile

NAME: **Tom Abazia** CALL: **KB2ESE**

What do you do/what did you do for a living?

I retired in October of 2021 after working over 24 years for Sun Microsystems and then Oracle as a sales engineer. Prior to this I was employed in several jobs as a software engineer for aerospace and manufacturing companies.

How did you get interested in ham radio?

I was interested in ham radio since grammar school. However, being shy and introverted most of my life I never got past short wave listening. I didn't get my ham license until well after I got married and had kids.

In seventh grade I built a two-tube regenerative receiver and power supply from an ARRL publication. I have not been able to locate this publication however.

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From The President

Dear fellow members of FLARC,

Since the last edition of the Resonator, the FLARC Board has been hard at work on club infrastructure initiatives that are designed to, among other things, bring new possibilities for wider membership participation. We've also been working on fleshing out Lee KD2DRV's vision for a FLARC youth program, which will bring opportunities for members who have a passion for bringing amateur radio to young people. David KD2MOB is leading our effort to make necessary revisions to the club's bylaws. We'll be presenting these to the membership for approval, hopefully by the April business meeting.

Regarding activities coming up this month: First, we'll be offering two different opportunities related to the Bouvet Island DXpedition -- an endeavor by a group of world class adventurers who have taken tremendous personal risk to achieve something extraordinary. The 3Y0J team is doing their best under extremely difficult conditions and are conducting operations that are scaled down relative to what was originally planned. Our thoughts and prayers are with them for safety and success. Fred W2AAB will open the club to members who wish to attempt contact with this rare DXCC entity. Fred is monitoring conditions closely and will announce the club opening accordingly via groups.io. This DXCC entity won't be available again for decades, so be sure to join Fred at the club.

For the second 3Y0J opportunity, I'll be heading to the Catskills on the morning of Tuesday, February 14 to join Jim KB2FMH at his QTH at Ten Mile River Scout Camps in Narrowsburg, NY. Jim is using his legal limit rig to attempt contact with Bouvet Island. This will be a day trip, leaving the club at 9:00 AM on Tuesday and returning in the afternoon. Watch for an announcement on groups.io. If you have no other Valentine's Day commitment, please join us. Jim will be at Ten Mile River Scout Camps through Thursday, February 16.

On the Kawfee Tawk front, Ron Block NR2B will be holding a talk titled "Grounding the Ham Radio Shack" on February 17. Ron is Vice President of Gloucester County Amateur Radio Club (GCARC) and winner of the July 2022 QST Cover Plaque Award for his article on lightning protection and grounding.

Continued on next page.

Member Profile, continued

Before I was able to drive I would bug my father to take me to Lafayette on Rt. 17 in Paramus almost every Saturday to buy parts for my radio kit.

What parts of the hobby most interest you?

Kit building interests me the most. Besides the two-tube regenerative receiver I built in seventh grade, I built a 20 meter direct conversion CW transceiver (a Doug DeMaw design) from an article published in QST.

I recently bought a QRPLabs QDX digital transceiver kit. It is still sitting on my workbench waiting for a block of time when I can build it. I have also built a couple of HF antennas and a 2m/70cm satellite Yagi.

What help or information do you need that the club could provide to really get involved with ham radio?

There is really nothing the club can provide that would get me more involved with ham radio. My current schedule and time restrictions are the bigger challenge. I think the club has been very welcoming to me and others, from what I have observed.

From my point of view the club provides ample opportunities to get involved – including a club house with equipment, hams willing to help and mentor, hamfest and special interest groups. I alone shoulder the challenge to make time and get involved with FLARC, hopefully sooner rather than later.

How would you like to become more involved with FLARC?

I can see myself being involved with field day and helping with special event activities. I would probably need to spend more time with the club members to understand the needs.

What else can you tell the club about yourself and/or ham radio?

Despite the fact that I have not been an active ham (except very briefly this past Field Day) I still find myself inexplicably drawn to ham radio and the ham radio community. I continue to dabble with my equipment and ham projects whenever I can.

This includes supporting two of my three sons in getting their ham radio licenses and helping others with technology whenever I can. I recently bought a used oscilloscope and am trying to help my son use it to test his audio tube-based amplifier projects.

From The President, continued

As an aside, this upcoming talk is an example of a growing trend of inter-club collaboration between FLARC and GCARC due to the efforts of long-time FLARC member and ex-president, Karl W2KBF and FLARC Marketing Committee Chair, Ed WX2R. Karl introduced me to GCARC President, Jonathan Pearce WB2MNF in the interim between tranches 1 and 2 of the ARRL Club Grants program last year. Jon and I were Vice Presidents of our respective clubs at that time. He has proved to be an invaluable advisor as our Grant Committee has strategized how to move forward and as the Board and I consider forming a non-profit foundation for FLARC. Our plan is to reciprocate by sharing our Youth Committee's expertise with GCARC.

On Saturday, February 25, we will be conducting a station-to-station contact with the West Palm Beach Amateur Radio Group (WPBARG). Many thanks to Ed WX2R for pursuing a relationship with WPBARG and for scheduling collaborative events like this. With Ed in Florida for months at a time, there was no opportunity for WBARG to escape his networking expertise. We're also planning to collaborate with WPBARG as we formulate our youth program, an area in which our colleagues in Florida have enjoyed success.

W2NPT Becomes W1AW… For One Week!

The club has been thanked for our planned participation in the 2023 ARRL Volunteers On the Air event, serving as a VOTA W1AW Portable State-Week participant.

We will be operating as W1AW/2 during the week of August 9th, pending our Council approval.

Tom Preiser N2XW, the NJ state coordinator for ARRL, noted that they have made great progress in getting nearly all states set up for at least one week, and many with two.

The activation is for one week beginning August 9, 2023. CW, SSB, FT8 are all acceptable.

As we get closer we will need to set up a member operating schedule as a week's worth of contacts is no small matter. Stations can participate from their home so we can work around the club station.

Stay tuned for more details.

VOLUNTEERS ON THE AIR 2023

Meet Up

Determined to show off their call sign caps, Hal N4GG and Ed WX2R met for lunch in Stuart, FL late in January.

Hal writes the monthly “Around the Shack” column and is a founding member of FLARC. He is also best buds with Van W2DLT, Jim W2JC and Fred W2AAB — going way back.

Great to meet Hal in person!!

Ed WX2R and Hal N4GG

2023 Dues Are Due

Dues for 2023 will be accepted by the club starting on December 2nd with the 2022 Annual Meeting. There are no changes to dues for the upcoming year. Cutoff date is March 31, 2023.

Please makes checks payable to:
“Fair Lawn Amateur Radio Club”
and send them to:

Bruce F Kalogera NJ2BK
163 Meadow Lane
Secaucus, NJ 07094

Please include a member application form with your check regardless of your member status. It can be found near the back of this newsletter.

Easter Island in the Log

Nomar NP4H bagged it on 24 January Pop Up Tuesday on USB from Position 5. A good one!!

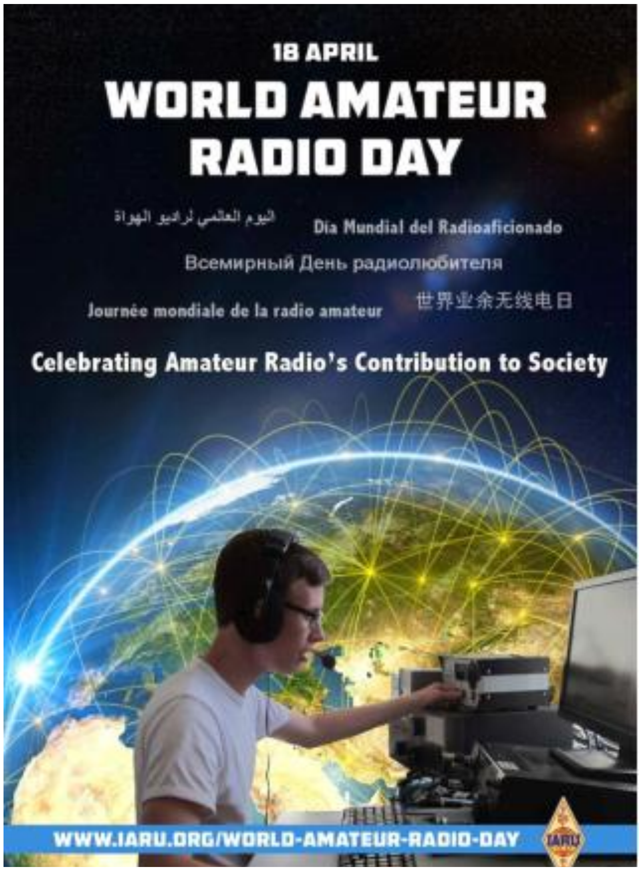
Nomar NP4H

World Amateur Radio Day Is Coming! • Tuesday, April 18th!

The clubhouse will be open from 2PM until closing for this annual operating event (not a contest). We are seeking volunteer operators and may look to set up a schedule so we can keep the station on the air.

This is a casual event to promote amateur radio in recognition of the creation of the IARU (International Amateur Radio Union) in Paris in 1925.

The club will follow all borough COVID-19 requirements for this event.


18 APRIL
WORLD AMATEUR RADIO DAY
اليوم العالمي لراديو الهواة
Dia Mundial del Radioaficionado
Всемирный День радиолюбителя
Journée mondiale de la radio amateur
世界业余无线电日
Celebrating Amateur Radio's Contribution to Society
WWW.IARU.ORG/WORLD-AMATEUR-RADIO-DAY
IARU

The Fair Lawn Amateur Radio Club

Why Is FLARC New Jersey's Most Exciting Radio Club?

FAIR LAWN
CELEBRATING 60 YEARS
N J
1956 2016
AMATEUR RADIO CLUB

Events

- Field Day
- Winter Field Day
- World Amateur Radio Day
- Portable Days
- Earth Day
- Special events
- Memorial Day parade
- Independence Day fireworks
- Fair Lawn Street Fair(s)
- Ham fests/Auctions
- Foxhunts
- Contests
- Field trips
- Annual holiday party
- …and more!

There Is Something Every Night At FLARC!

- Monday: Near and Far Net
- Tuesday: DMR Net
- Tuesday: "Pop Up" Open House/Open Zoom
- Wednesday: ARES/RACES Net
- Wednesday: Health and Welfare Net
- Thursday: Tech Net (with BARA)
- Friday: Kawfee Tawk Speaker Series (monthly)
- Weekends: POTA and other station activations

There is Something for Everyone at FLARC!

Special Interest Groups:

- Portable Ops: POTA, SOTA, etc.
- DX: Chase the rare ones
- Digital Voice: DMR and other digital modes
- FT8: And other WSJTX modes
- Satellite: Also, for weather GPS interests
- Monitoring: SWL and other general listening
- And others to come!!

Plus:

- Monthly VE Testing
- An active repeater – W2NPT (linked with NJ2BS)
- New equipment in the shack
- New antennas on the roof
- A five-position operating clubhouse
- Over 72 consecutive months of speaker programs to learn and grow.

That's why FLARC is the best club around!!

Join us in our in-person and in our Zoom Room for more activities, speakers, and projects to come!

FLARC is following Covid-19 government guidance closely and all events and activities will adhere accordingly to the latest advice.

The Club Fair Lawn ARC is the fastest growing ham club around, with five operating positions in a permanent clubhouse. Visitors and guests are always welcome. The club is open every Friday night, except when there is a Kawfee Tawk scheduled, from NLT 6:30 PM. Business meetings are the first Friday of the month at 7:30PM.

2023 Officers, Committees and Assignments

President	**David Corsello**	**KD2JIP**
Vice President	**David Gotlib**	**KD2MOB**
Treasurer	**Bruce Kalogera**	**NJ2BK**
Secretary	**Lee Smith**	**KD2DRS**
Trustee	**Fred Wawra**	**W2ABE**
Trustee	**Brian Cirulnick**	**KD2KLN**
Trustee	**Steve Rosman**	**KA2YRA**
Field Day	**Noel Pagan Steve Rosman Steve Wraga**	**W2MSA KA2YRA WA2BYX**
Member Services Health & Welfare	**Judith Shaw**	**KC2LTM**
Marketing	**Ed Efchak Nomar Vizcarrondo Jim Cooper Dave Corsello**	**WX2R NP4H W2JC KD2JIP**
Program	**Ed Efchak**	**WX2R**
Video/YouTube	**Thom Guida**	**W2NZ**
Social Media	**Thom Guida Dave Marotti**	**W2NZ NK2Q**
Photographer	**Giovanni Lucero**	**K2GIO**
Community Relations	**Gene Ottenheimer Dave Gotlib Ed Efchak**	**WO2W KD2MOB WX2R**
Hamfest and Auction	**Gene Ottenheimer Bill Leger Bruce Kalogera**	**WO2W WA2WL NJ2BK**
Education	**Bill Kelly Earle "Skip" Barker Paul Brennan**	**NB1LL KD2BRV N6FB**
Net Scheduler	**Brian Cirulnick**	**KD2KLN**
Contests	**Lowell Vant Slot**	**W2DLT**
FLARC Historian	**Fred Belghaus**	**W2AAB**
Webmaster	**Jim Cooper**	**W2JC**
Technical	**Jim Cooper Paul Cornett Brad Kerber Fred Wawra**	**W2JC W2IP KM2C W2ABE**
RACES/ARES Director RACES/ARES Liaison	**Dave Gotlib Steve Wraga**	**KD2MOB WA2BYX**
Newsletter Editor Newsletter Publisher	**Ed Efchak Jim Cooper**	**WX2R W2JC**
Quartermaster	**Brian Cirulnick**	**KD2KLN**
W2NPT Trustee	**Paul Cornett**	**W2IP**
NK2H Trustee	**Ed Efchak**	**WX2R**

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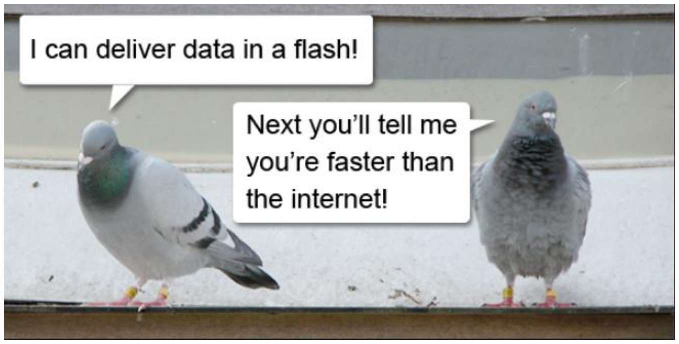

I can deliver data in a flash!
Next you'll tell me you're faster than the internet!

HAMSCI Solicits FLARC and Other Clubs to Participate in the 2023 Solar Eclipse QSO Party

The club has been asked to participate in the 2023 Solar Eclipse QSO Party which will occur on Saturday, October 14, 2023.

This annular eclipse is the second of three notable solar eclipses **viewable from the US**. It follows the US total eclipse of August 2017, and comes six months before the Mexico-US-Canada total eclipse of April 2024.

Annularity, where the Sun forms a 'ring of fire' around the Moon, is visible along a narrow path that crosses the US from **Oregon to Texas**. It then passes over Mexico's **Yucatán peninsula**, plus parts of **Central America**, **Colombia**, and **Brazil**. Elsewhere in the Americas — from **Alaska to Argentina** — a partial eclipse will be visible.

The eclipse will be visible in Fair Lawn, but will be far less spectacular than in 2017. It will be only partially visible (22.87% coverage of Sun) with a magnitude of 0.347. The duration of the event will be 2 hours, 27 minutes, 1 second from Fair Lawn and begins October 14, 2023 at 12:08:39 pm and reaches maximum at 1:22:00 pm. The eclipse ends in Fair Lawn at 2:35:40 pm. Times shown in local time (EDT).

Participation will be across all modes but with an emphasis on CW and all digital modes. The club is also encouraged to establish a WSPR station and provide data prior to the actual event.

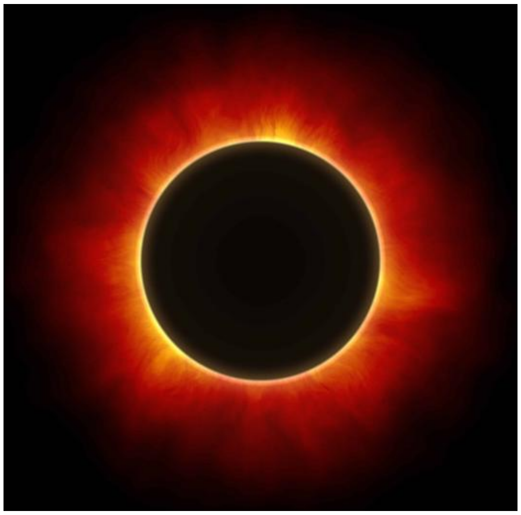
The Amateur Radio Science Citizen Investigation (HamSCI) is an initiative to connect amateur radio operators with scientific researchers, and to use amateur radio as a citizen science tool to collect scientific data, particularly in geospace science.

HamSCI holds annual workshops each year. Most HamSCI projects focus on the ionosphere. The central initiative of HamSCI is the Personal Space-Weather Station, a project to conduct distributed sensing of space weather by developing modular hardware similar to traditional weather stations.

Nathaniel Frissell W2NAF heads up the project and Ed WX2R is part of the public relations team for both the 2023 and 2024 events. Both are members of FLARC.

More information can found here: https://hamsci.org/

HamSCI



2023 FLARC Kawfee Tawk Programs

Date	Presenter	Program
January 13, 2023	James Gallo KB2FMH	What It Takes to Produce A DXpedition
February 17, 2023	**Ron Block NR2B**	**Grounding the Ham Radio Shack**
March 17, 2023	Ed Efchak WX2R	The FLARC Member Survey
April 21, 2023	Dave deCoons WO2X	An Overview on Operating Flex Radios
May 12, 2023	Ron Wilcox KF7AN	A Trip to the Sun and the Ionosphere
June 2023		
July 2023		
August 2023		
September 2023		
October 2023		
November 2023		
December 2023		

Hidetsugu Yagi's 130th Birthday Google Doodle

Follow FLARC ON THE WEB

Facebook:	http://facebook.FairLawnARC.org
Twitter:	**@FairLawnARC**
Blog:	http://blog.FairLawnARC.org
Youtube:	http://youtube.FairLawnARC.org
Website:	http://FairLawnARC.org

SIG Group Participation as of January 30, 2023

Here is an update on the roster of Special Interest Groups…many groups have increased in size during the last month. About 45% of all members have joined at least one group.

EMCOMM	12
Contesting	14
Digital Voice	32
Monitoring	28
DX	19
FT8	24
Satellite	20
Portable Ops	47
Raspberry pi	7
Direction Finding (NEW)	5
FLARC General	**168**

Sign up for a group... or …
why not start one?

Contact webmaster@FairLawnARC.org
if you would like to start a new
Special Interest Group.

The Clubhouse Is Open Three Fridays In February!!

Date	Clubhouse Status
February 3	OPEN – Business Meeting
February 10	OPEN
February 17	CLOSED – Kawfee Tawk
February 24	OPEN

And Stand-by for Other Open Days or Evenings!

Pop-Up Tuesdays are now in-person at the club as well as in the Zoom-room.

The club will follow all borough COVID-19 requirements for these events.

Pop-Up Tuesday informal "ragchew" TONIGHT at 19:00 EDT in ZOOM-room and live **AT THE CLUB**.

AMATEUR RADIO TESTING BY THE FAIR LAWN AMATEUR RADIO CLUB

On February 11, 2023 the Fair Lawn Amateur Radio Club will continue
amateur radio test sessions on a modified basis.
These sessions will be held at the Fair Lawn Amateur Radio Club.
The location is at 10-10 20th Street, Fair Lawn, NJ
The session starts at 9:15 AM.

A document will be provided to you prior to the date to indicate the time assigned to you.
You must have it with you to take the test.

Prior to Testing:
Send an email to wo2w@arrl.net requesting to book your spot.

PRE-REGISTRATION is required - NO walk-ins accepted.

Upon Arrival:
You must have a government issued ID such as a valid driver's license or passport,
a filled out Form 605, and 3 filled out copies of the FCC CSCE form.

Please Bring With You:
You MUST bring and WEAR personal PPE items including a face mask.
2 pens and 2 pencils — None will be provided to you,
due to possible virus transmission.

Your FRN number, and (if licensed) a copy of your ham license or
a valid CSCE (Certificate of Successful Completion Exam).

Additionally, the $15.00 exam fee. This is payable in cash (exact amount is a must).

For information and scheduling, please contact:
Gene/WO2W WO2W@arrl.net

Visit our website at www.FairLawnARC.org and http://bit.ly/FLARC-Testing

The Art of Grounding

Ron Block NR2B

February 17, 2023

2023 FLARC Kawfee Tawk™ Series

One of the mistakes that we as amateur radio operators make is connecting an antenna to our radio and then just turning it on. While that may seem totally harmless, it isn't necessarily so. That properly grounded antenna, even with a high-quality coaxial surge protector, can bridge the radio across two different grounds. We'll discuss how this can happen and what's necessary to fix it.

Proper grounding is critical to good operating and is often overlooked. This month we will learn how to improve our learning curve in this topic as Ron Block NR2B takes us through the basics.

This video program via Zoom will be held on
Friday, February 17th, 2023 beginning at 7:30 PM EST.

The program will last about an hour and will include an opportunity for questions and comments. The link to the presentation can be found here:

Join Zoom Meeting on web		Join Zoom Meeting by phone	
Meeting ID:	871 9030 4080	Meeting ID:	871 9030 4080
Passcode:	kawfee	Passcode:	400613
	https://zoom.us	Dial:	646 558 8656

Ron Block, NR2B, holds an Amateur Extra-class license. He worked for twenty years in the computer industry as a project manager on complex one-time computer-based systems. In parallel, he became a PolyPhaser distributor and then a consultant for lightning protection and grounding projects.

He is published in QST, QEX, and CQ and has collaborated with H. Ward Silver N0AX on the book ***Bonding and Grounding***, first and second editions.

Ron is mostly retired and about to publish ***Lightning Protection, A Complete Guide for The Amateur Radio Station***. He is an active ARRL member.

So, join FLARC on February 17th for this timely and exciting presentation.
If you have any questions, please contact Ed Efchak at 802-282-6700 or at wx2r@arrl.net

When you log in, please show your FIRST NAME and your CALL SIGN.
For more information, please visit the club's website at http://www.FairLawnARC.org
or call 201-791-3841.

FLARC Meets With WPBARG

Ed WX2R met with our partner club in West Palm Beach late last month. He was invited to the WPBARG picnic and followed with a presentation about FLARC at their club meeting on 25 January.

The meetings proved to be productive, and WPB is eager to work with us. It looks like the topics of youth, POTA, and member participation will be joint areas of discussion.

WPBRG Picnic

FLARC Will Be There on March 4th!

Pandemic Theatre

The first of two nearly back-to-back solar eclipses occurs on October 14th. While only a partial event this time around, the April 2024 one has the potential to be a total solar spectacular.

Here is some detail (about nine minutes):

https://www.exploratorium.edu/eclipse

Get Direct With FLARC!

Here is a direct link to specific club info: just a click away!

http://apparel.FairLawnARC.org
http://auction.FairLawnARC.org
http://blog.FairLawnARC.org
http://calendar.FairLawnARC.org
http://events.FairLawnARC.org
http://exams.FairLawnARC.org
http://facebook.FairLawnARC.org
http://news.FairLawnARC.org
http://swap.FairLawnARC.org
http://tech.FairLawnARC.org
http://youtube.FairLawnARC.org

https://groups.io/g/FairLawnARC

Online License Testing!

Are you looking to get your license or upgrade without leaving your home? All you need is a laptop computer with a video camera.

There are number of sites listed on hamstudy.org/sessions These folks will walk you through taking an exam online.

I have worked with both WB5QNG and AA7HW. If you have any questions, please contact me at mStevenk2sab@gmail.com

73,
Steven Boston K2SAB

FLARC Finishes Fifth in 2022 NJ QSO Party but Wins Bergen County

The results of the 2022 NJ QSO Party are finally in and FLARC finished fifth among local clubs with just under 119,000 points with two entrants. The South Jersey Radio Club took first place with 180,500 and five entrants.

Fred W2AAB scored 65,632 for first place in Bergen County followed by the FLARC club station W2NPT with 52,440. Al K2AL from New Providence was the overall SOAB winner with just over 75,000 points.

There were only three multi op stations this year – FLARC, Sussex ARC and Delaware Valley.

The Burlington County club runs the NJ QSO Party and the full results can be found here:

http://www.k2td-bcrc.org/njqp/results/2022%20NJQP%20Results.pdf

Special Note: *As non-profit, the IRS now requires that we disclose annually the use of paid lobbyists to our members and indicate approximately what percentage of their dues goes toward that. 0% of your 2021 dues payment will be used by the club to directly pay a lobbyist firm to lobby on behalf of all our members regarding pending legislation that impacts our hobby.*

Ham Radio Is Contagious
And It Won't Make You Sick!!

Renew Your ARRL Dues... Send Free Money to FLARC!

The ARRL has a great program to support affiliated clubs in that it sends part of your dues back to the club if you renew through the club.

So… when you get your ARRL renewal, send both your check and your renewal application to Bruce NJ2BK, our trusty Treasurer, who will take care of getting your renewal to Newington and a fat check for $5.00 back to FLARC.

Nothing can be simpler…
you just have to remember!!

Print and use the form on page 63 of this issue of

The Resonator

Club Apparel — Get Them While They're RED!

Club apparel is always in vogue. Red is always "in" and your club friends all have them... you *want* a shirt or jacket for the next FLARC event! Great for Field Day!

Don't forget.... they're easy to order.
Go to www.hamthreads.com
or visit http://apparel.FairLawnARC.org

Check out the item selection that is posted on the FLARC website (with pictures and prices). Order the shirts or other items you want with either the regular FLARC logo or the still-cool 60th anniversary logo. Note: **RED** is the primary and preferred club standard shirt color.

And why not WEAR your nice red shirt when you come to the club, especially for meetings and events.

It's easy to spot FLARC members with their red club shirts !

2023 FLARC Net On The W2NPT Repeater:

Near and Far Net Mondays at 8PM

W2NPT and NJ2BS Repeaters

FLARC Open on Tuesday Evenings!!

We're open for business every Tuesday!

- Operate the stations.
- Use the workbench.
- Catch up with others.

Make it a habit!

Remember:
Ham Radio Is a Contact Sport!

BEQUEATHS AND DONATIONS

Planned gifts usually imply the family donation of amateur equipment to the club when someone has become a Silent Key. But it can be more. Club members might consider making a gift through a will or trust; gifts that help provide lifetime income to the club. Consult with your lawyer, estate planner or tax advisor if you feel such as gift is worthy.

About The Club

The Resonator is published monthly and is the official (and only) newsletter of The Fair Lawn Amateur Radio Club. FLARC was established in 1956 and has met continuously since inception. **The club is sponsored by the Borough of Fair Lawn.** The club meets every Friday, except when a *Kawfee Tawk* is scheduled, at 6PM at the club station in The Fair Lawn Community Center, 10-10 20th Street, Fair Lawn, NJ. Business meetings are the first Friday of the month at 7:30 PM at the club, and on Zoom**.**

Visitors ARE ALWAYS welcome at our meetings.

FLARC operates the W2NPT repeater (145.470-PL **167.9**) located high atop the Community Center. The analog repeater is open to all amateurs for use without restrictions.

The club has nearly two hundred paid members.

Dues are currently $25 per year;
$20 for new members.

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Thanks!
for your
Support!!

This is YOUR club.... Be a part of it !!

MARKETING COMMITTEE NEWS

The Publicity Committee is now the Marketing Committee and is working to spread the good words about FLARC and help get all members involved. Interested in joining?
Drop a note to wx2r@arrl.net.

FAIR LAWN'S
COMMUNICATIONS CENTER!
With Our Antennas On The Roof!

Blood Donors Needed In This Time Of Emergency

The Red Cross and related organizations are in great need for blood donations since most corporate blood drives have been cancelled. This has become acute recently. Especially in these days of Covid.

Communitybloodservices.com has a network of offices open during the week and would really welcome folks making appointments to donate blood.

Dear fellow Amateur Radio Operators,

The American Red Cross (ARC) in New Jersey is working on a project where Amateur Radio Operators (HAMs) would support Red Cross internal emergency communications during a disaster. Red Cross sites can be shelters, warehouses, points of distribution, family reunification centers, community reception centers, and other sites where the Red Cross is supporting disaster response and recovery missions.

We are seeking HAMs to support these sites as a backup for conventional communications that may fail during a disaster. This work is in direct support of safety of life and protection of property (47 CFR § 97.403).

Currently, we are only looking for names of operators who would be interested in helping and their location within the state. The how will come after we know the who.

We are looking for HAMs to work as partners, either as an individual or with an organized group (club, ARES, RACES). We are not looking to take anyone away from their other committed roles that they would perform for their communities.

We have split the state into three territories, North-Central-South, each containing seven counties, with communications being provided within the territories and the state.

The Red Cross will provide free disaster training to better understand what we are doing, as well as drills and exercises. Your commitment will be to attend training, drills, and exercises when you are able to and based on your ability to participate at the time that a disaster strikes.

If you are interested in helping or learning more about this opportunity to use your amateur radio license in support of emergency communications in New Jersey, please fill out the form, at the link below.

73, ARC Assist Committee

Ed K2BED • Mike KC2UOA • Peter S, not yet licensed • Bill, NB1LL

Form is at https://forms.office.com/r/tqmB8cBV3F

FLARC January 21, 2023 VE Testing Results

With VE testing back on schedule, Gene **WO2W** reports the following results:

Name	Call	License Earned
Bogdan Malinowski	KD2DSE	General
John Pamias	KE2AQX	Technician
Nishan Gharibian	KE2APX	Technician

Testing for November will be at the
Fair Lawn Recreation Center - with "Covid Restrictions."

See page 9 of this Resonator copy, and also the
FLARC website for the latest details.

Ten Special Interest Groups [SIGs] Already Formed: Any Others?

A new SIG—Radio Direction Finding—has started under the tutelage of Bob KD2BKD. Club interest continues to grow in the SIGs.

Another recently formed SIG is for those interested in Raspberry Pi and Arduino projects, but now includes DoItYourself (DIY)/Makers kit building, 3D printing and similar topics – also managed by KD2BKD.

A list of all of the current SIGs is shown on page 6.

Other possible groups, from the member survey, include:

- *Radio Propagation*
- *Antennas and how they work*
- *Ham radio software*

Anyone interested in leading any of these groups…?

Please contact webmaster@FairLawnARC.org

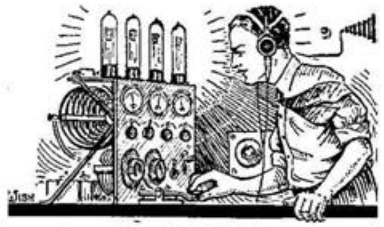


Image from May, 1926 QST, courtesy ARRL

The Way We Were

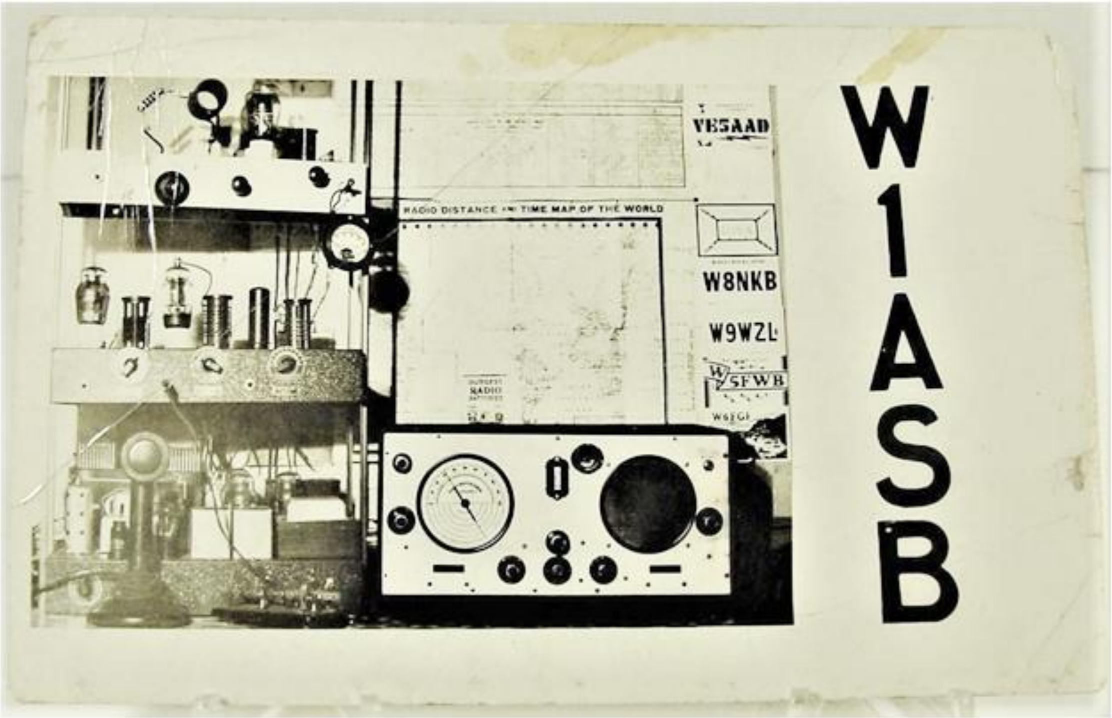
By Fred Belghaus W2AAB

The Art of Homebrew – Part 3

Last month, we looked at the 1930s, and the significant changes that were made to the Art of Homebrew. This month, we continue with a study of the homebrew equipment of the 1940s.

The 1940s – Steel, Aluminum, and Some Occasional Throwbacks

Let’s begin at the beginning, with a 1941 station. It doesn’t look much different from those of the late 1930s, and that’s when it was probably built.



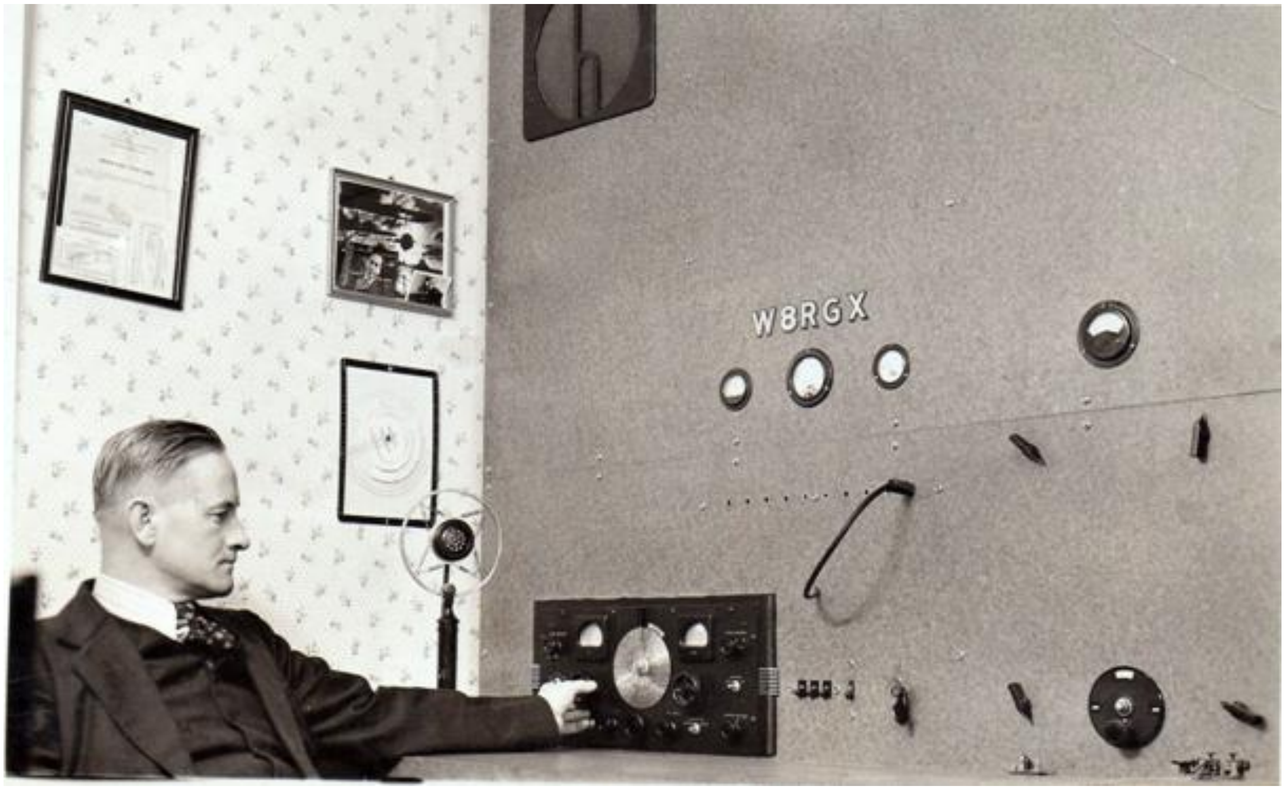
The transmitter, at left, is built on steel chasses in a rack, but one made with thin metal uprights. The bottom shelf is the power supply and, I believe, the AM modulator. The middle row contains the exciter stage of the transmitter, and the upper row, the final amplifier stage. There is a meter hanging from the upper, power amplifier chassis, and I’d wager that it was part of a simple field strength meter to assist in transmitter tuning.

The receiver is one of the early “Skyrider” receivers made by Hallicrafters in the mid 1930s and sold by Silver-Marshall, Chicago. [1] This model differs only slightly from the original production run, with pointer tuning rather than a clear plastic “slide rule” type pointer, and the addition of a “magic eye” cathode ray tube just above and to the left of the speaker, which may have been an inexpensive substitute for a more usual “R” meter to register signal strength.

Continued on next page.

The Way We Were, continued.

Here's an entirely different and quite unusual approach taken at W8RGX that same year. He built everything into a single, large, "wall" of equipment.



The meters are for measuring transmitter voltage and currents, with a small vernier dial at lower right, which I suspect may be a tuning adjustment for an E.C.O. (Electron-Coupled Oscillator), which was the predecessor of the V.F.O. (Variable Frequency Oscillator) that we know today.

The E.C.O. was developed in the mid 1930s and became quite popular, allowing easy transmitter frequency changes over the bands. But its drawback was its notorious instability. Still, many amateurs built them, because they offered a more frequency agile alternative to fixed frequency crystals. Unfortunately, we cannot get a glimpse at the actual construction of the transmitter, modulator and power supplies, since they are hidden behind the wall.

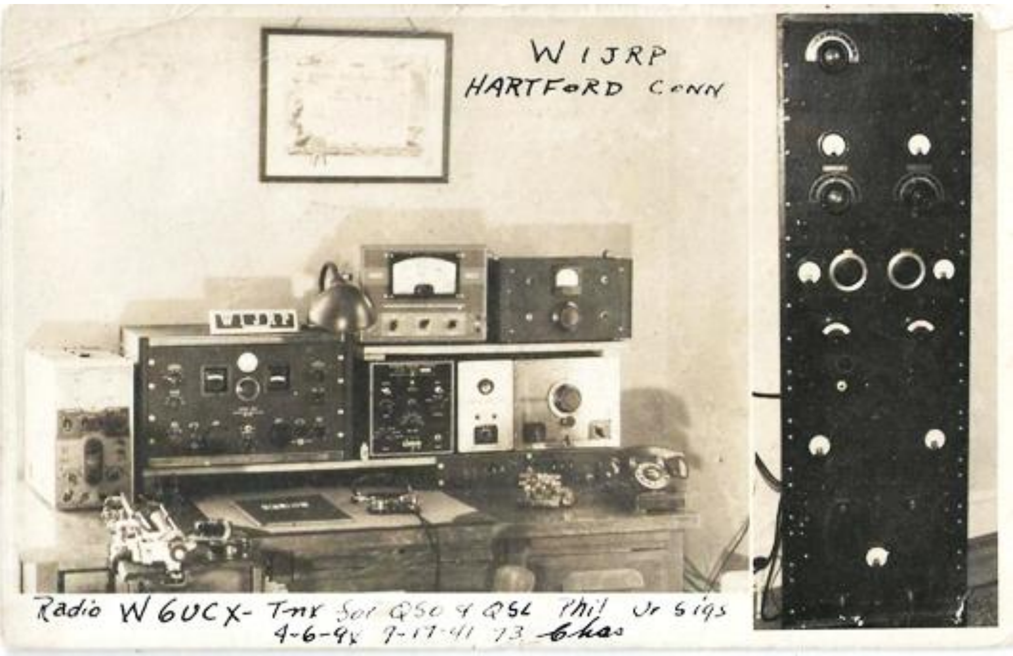
The receiver is another early Hallicrafters model, the SX-16 "Super Skyrider," and was made about 1937 or '38. This model was the first to employ what Hallicrafters called "inertia tuning," which was accomplished by using flywheels driven by two fairly large tuning knobs that look like small "steering wheels," and a "signal intensity meter" measuring "signal level" in "S" units. [2]

It had 11 tubes and covered the frequency range of 550 kilohertz to 61 Megahertz in 6 bands. [3] The matching Hallicrafters loudspeaker can be seen far above, in the wall at left. The "Super Skyrider" would go through another two upgrades in subsequent years, as the SX-28 and SX-28A in the early 1940s.

At that time, the SX-28s were considered the top of the line in Hallicrafters receivers, and U.S. Government agencies like the F.C.C. and F.B.I. employed them in signal monitoring efforts during and immediately after World War II.

The Way We Were, continued.

Here’s a more conventional approach, taken by W1JRP of Hartford, Connecticut, in 1941.

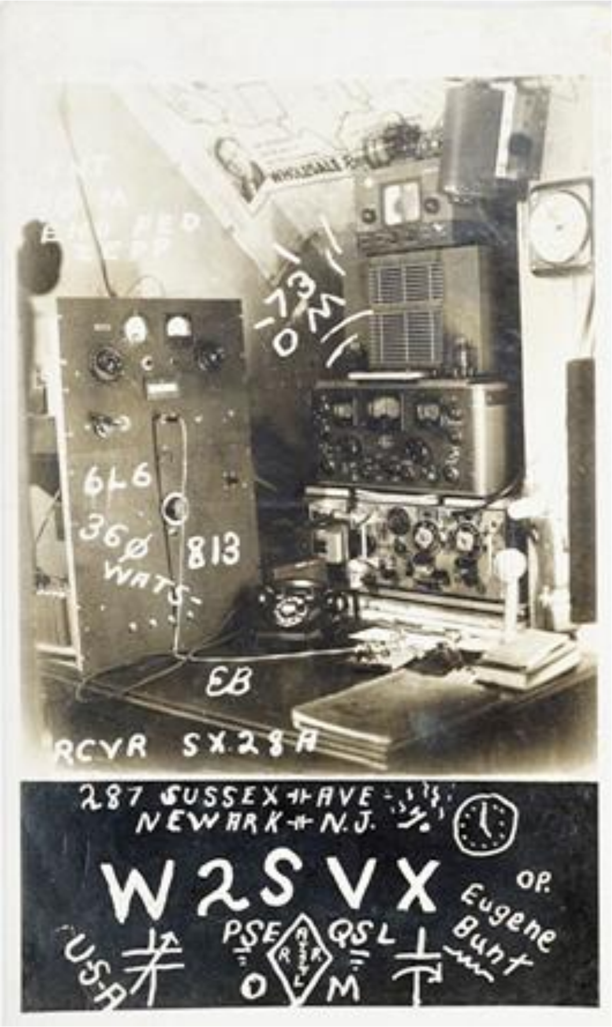


Above, the transmitter is built in the usual steel rack type construction, with another small unit on the top shelf, which may be a speech amplifier or modulator. Several pieces of commercial equipment can be seen also. The receiver, at left, is a Hammarlund “Super Pro,” and there is a Meissner “Signal Shifter” visible at right, an E.C.O. circuit and low power exciter. The early models used a metal 6F6 oscillator, a metal 6L6 as power amplifier, and covered 160 through 10 meters, using plug-in coils for each of the bands. [4]

Later models (designated “EX”), employed a turret tuning scheme for changing bands, an approach later found in television receivers in the late 1940s. The “EX” model covered 80 through 10 meters (including 11 meters – which was a ham band at that time) and ran about 70 Watts input (40 to 50 Watts output) using an 807 power amplifier stage. It was also capable of being AM modulated via a suitable external audio impedance matching transformer and speech amplifier. [5]

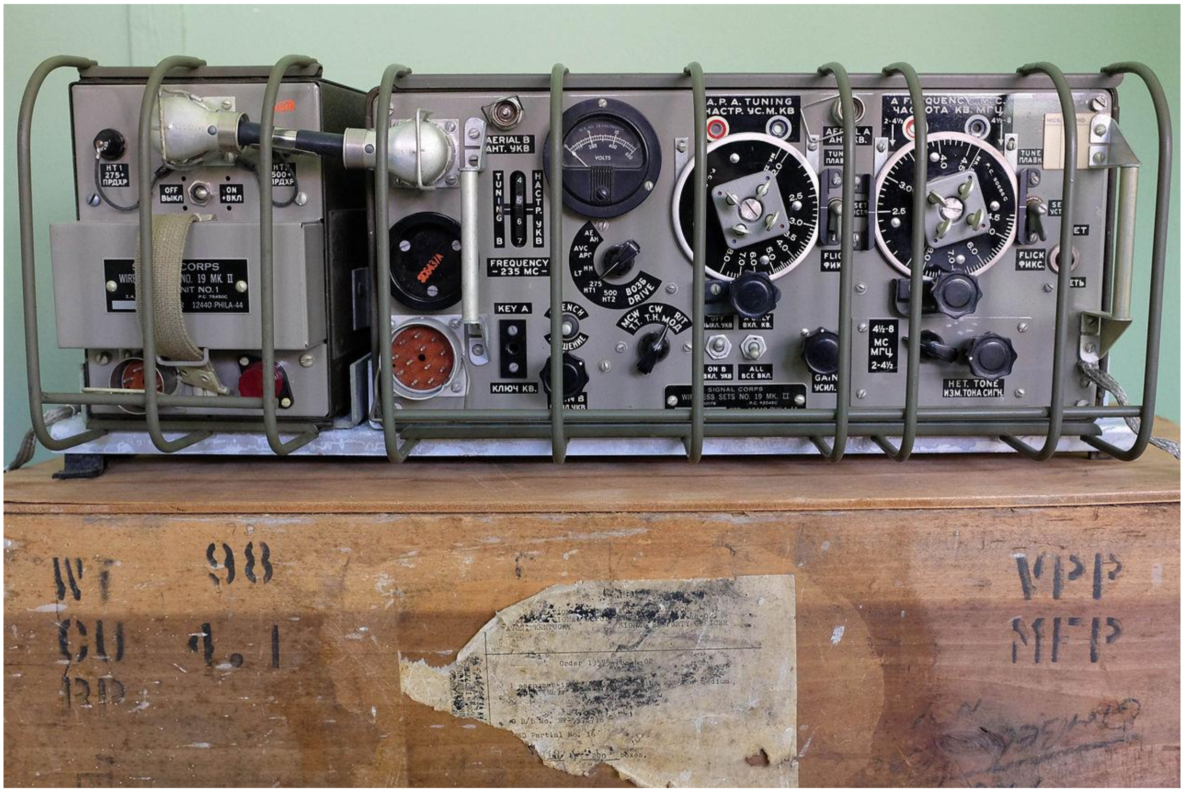
With the shutdown of amateur radio during World War II, we move beyond that period to an example [on the right] from 1946, and Newark amateur, W2SVX.

Here, we see something entirely new in hamshacks, the presence of wartime military surplus.



The Way We Were, continued.

In addition to the small, homebrew transmitter built in the rack and panel style, there is a Hallicrafters SX-28A receiver and beneath it, a surplus Army tank transmitter-receiver known as a "Mark II." The "Mark II" was actually a British design, known as a "Wireless Set No. 19," which was licensed for use by U.S., Canadian, and later, Russian armies in large quantities. [6]



British Wireless Set No. 19 AKA "Mark II" (*Wikipedia)*

Not only was this set used in tanks, it was also built like one. Note the "bars" across the front of the unit, added probably to protect the front panel controls from damage if it "took a spill." The transmitter was convertible to amateur frequencies, but it was not popular.

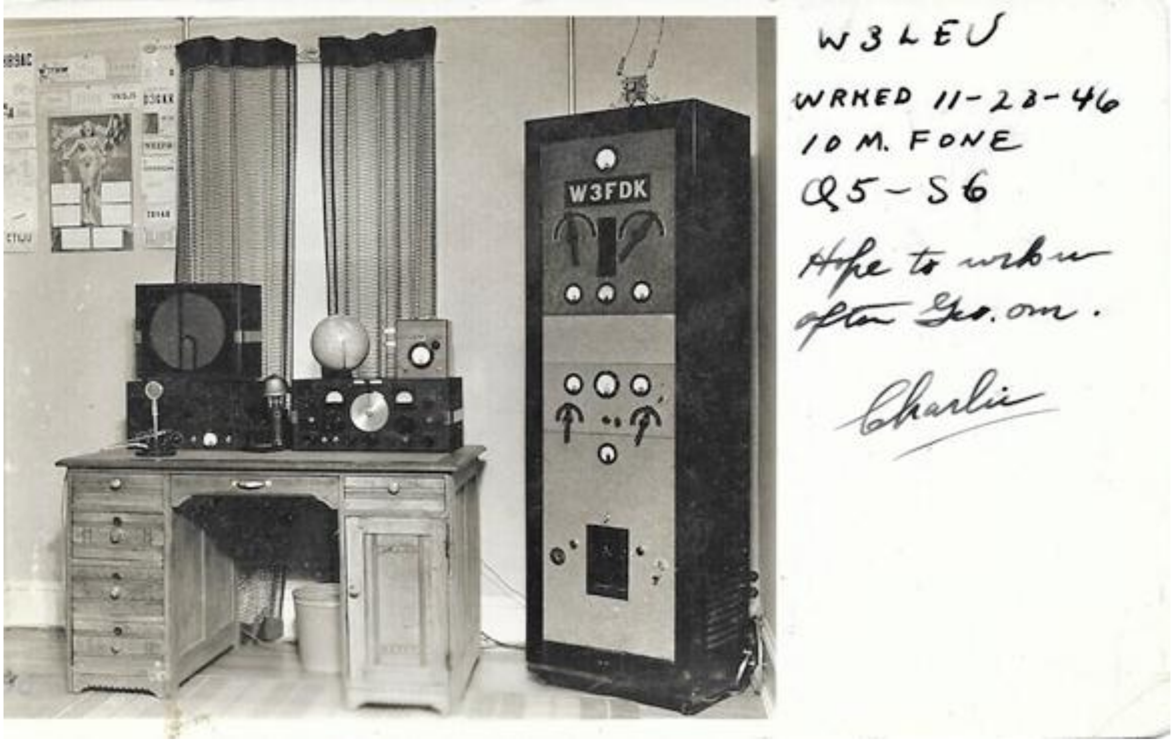
Here, I quote verbatim from an author who published a book in 1960 describing much of the World War II surplus items available to amateurs:

> The Mark II was originally designed for export to Russia for use in tanks.
> If you have a tank, this may be a good unit for you. While it is true that
> many of these units have been converted for use in the amateur bands,
> the effort involved to achieve a reasonable result is almost superhuman. [7]

This monstrosity covered two frequency ranges: 2 to 8 Megahertz and 229 to 241 Megahertz, AM, CW, and MCW. Power output was a mighty 9 Watts, and the unit weighed in at an unbelievable 86 pounds. [8] I can't help but wonder whether W2SVX ever managed to get his Mark II on the air, and I also wonder how many O.O. Reports and F.C.C. Violation Notices he may have received after completing that "superhuman" but ultimately futile effort.

The Way We Were, continued.

Now here's the neat, attractive station of W3FDK of Elkton, Maryland in 1946:



W3LEU

WRKED 11-23-46

10 M. FONE

Q5 - S6

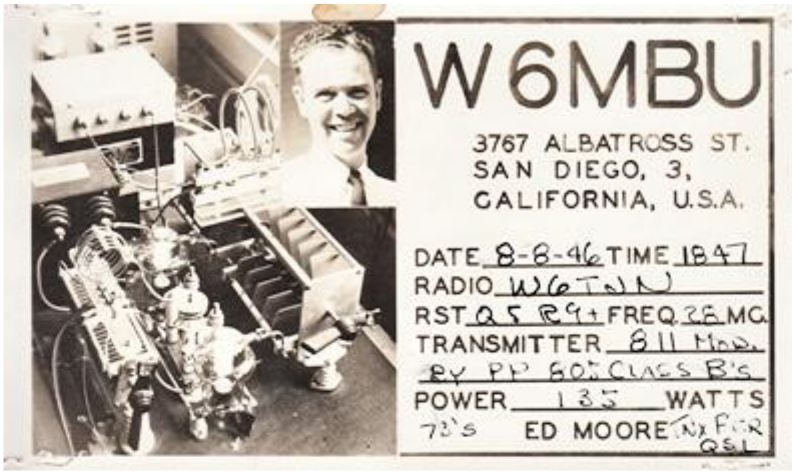
Hope to wrk u

often Geo. om.

Charlie

The transmitter is mounted in a standard 19 inch steel rack, with each section neatly constructed with steel front panels. Emerging from the top of the clearly high power final amplifier stage are the open wire line feeders, with a hefty power supply on the bottom of the rack assembly. At left, on the operating desk is another Hallicrafters SX-16 receiver, matching Hallicrafters loudspeaker, homebrew field strength meter, and behind the microphone, what I believe is a speech amplifier.

Here's another 1946 homebrew example, from W6MBU of San Diego, including a dramatic view of the station transmitter's final stage.



W6MBU

3767 ALBATROSS ST.
SAN DIEGO, 3,
CALIFORNIA, U.S.A.

DATE 8-8-46 TIME 1847
RADIO W6TNN
RST Q5 R9+ FREQ 28 MC.
TRANSMITTER 811 Mod.
BY PP 805 CLASS B's
POWER 135 WATTS
73's ED MOORE TNX FOR QSL

The power amplifier pictured consists of a pair of type 808 Triodes, [9] modulated by a single 811 Triode, [10] delivering a conservative 135 Watts RF output. I think the 808 is one of the "coolest" looking tubes ever.

The Way We Were, continued.

Here's a better view:

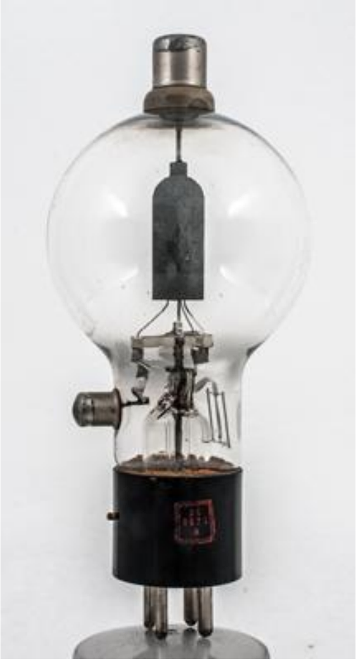
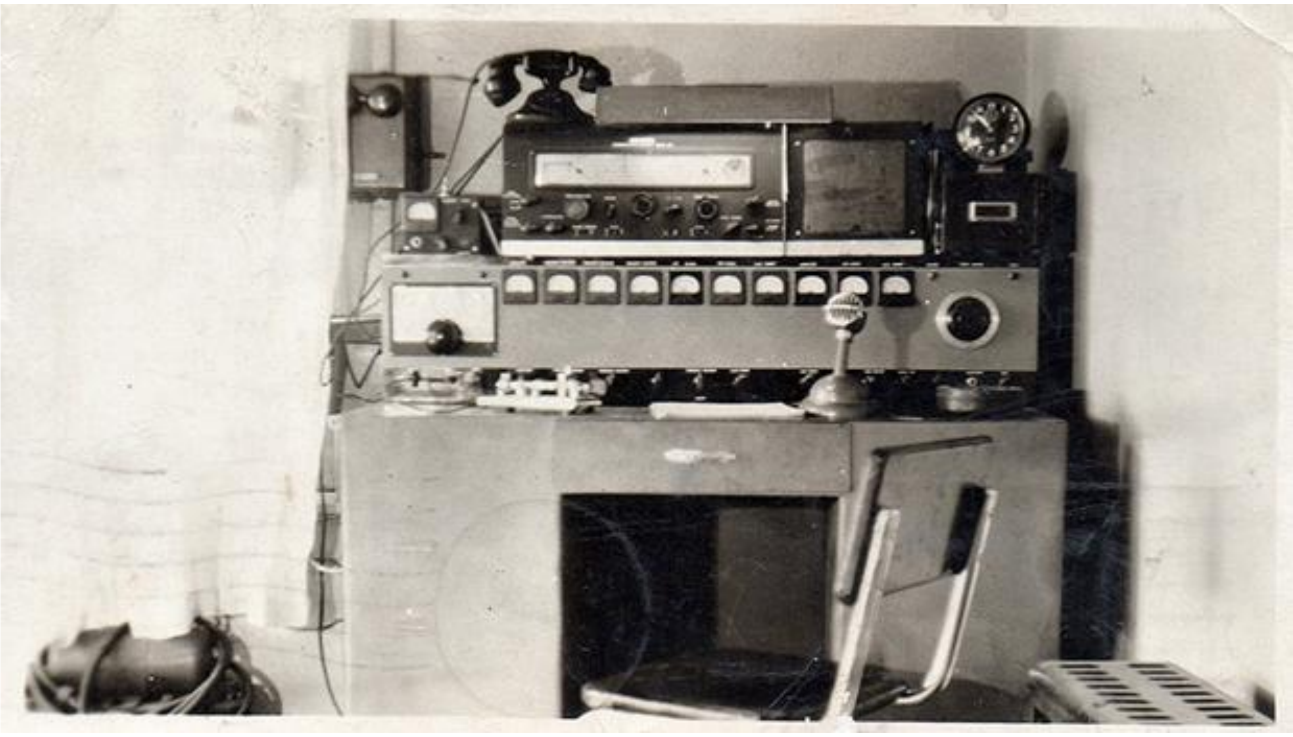


Image: http://www.r-type.org/exhib/aac0011.htm

Another unusual approach to homebrewing was taken by W5NID of Los Alamos, New Mexico, in 1947. Here we have another sort of "unified" construction:



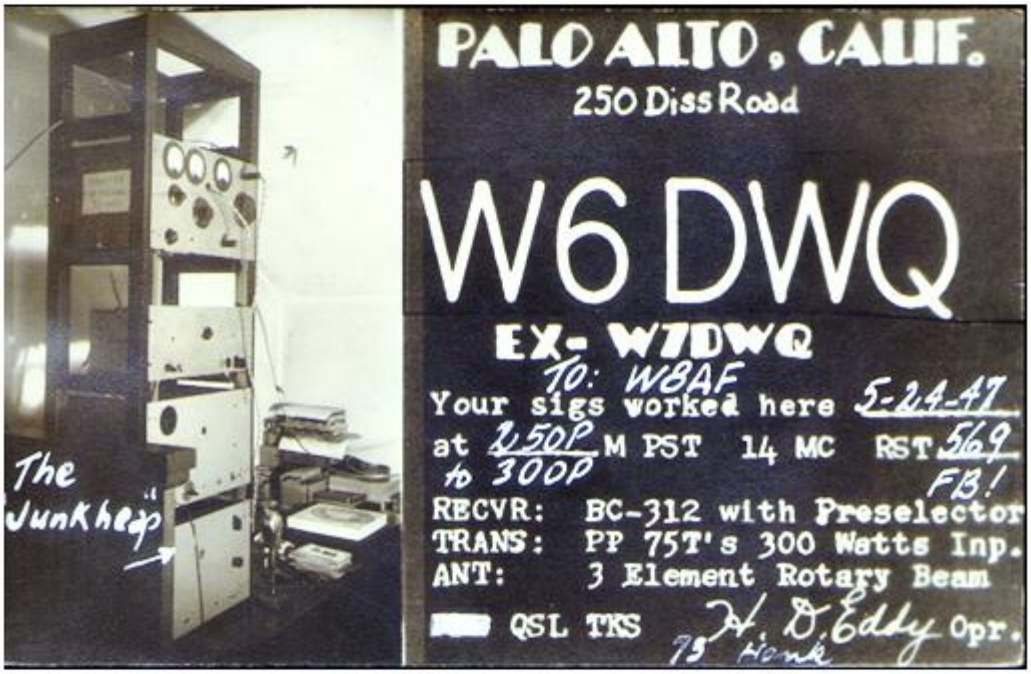
At W5NID, the console pictured is apparently only a part of the station, serving as a control board for the transmitter and audio stages. It is built in a long chassis/panel assembly with E.C.O. at left, using a National Radio Co. type "ACN" self-calibrated vernier dial. [11] At extreme right is a single large dial, the

The Way We Were, continued.

purpose of which is unknown. The actual transmitter, not shown in the picture, is described on the rear of the photograph as running a pair of Heintz & Kaufman HK-54 tubes modulated by a pair of 811s, with an input power of 500 Watts. It would have to be a pretty large, probably rack mounted affair. The console includes ten individual meters for measuring various voltages and currents used in the transmitter, speech amplifier, and modulator.

On top of the console is a Howard Radio Company receiver that I believe is their Model 460. Howard was once a well known receiver manufacturer in Chicago in the 1930s and '40s. This model had 12 tubes and covered 550 kilohertz to 65 Megahertz, and was one of their premium designs. It was first manufactured in 1938. [12]

Next, we have a 1947 rack mounted transmitter that reflects a "throwback" to the 1930s, using wood frame type construction, at W6DWQ of Palo Alto, California.



The Junkheap

PALO ALTO, CALIF.
250 Diss Road

W6DWQ

EX- W7DWQ
TO: W8AF
Your sigs worked here 5-24-47
at 2.50P M PST 14 MC RST 569
to 300P FB!
RECVR: BC-312 with Preselector
TRANS: PP 75T's 300 Watts Inp.
ANT: 3 Element Rotary Beam
[redacted] QSL TKS 73 H. D. Eddy Opr.
Hank

The transmitter, referred to as "The junk heap" consists of a pair of 75T's in push-pull, delivering 300 Watts input on 20 meters with a 3 element beam. The 75T was made by Eimac. It was a high power transmitting triode with a maximum plate voltage rating of 3,000 and maximum plate current of 175 milliamps (525 Watts theoretical input power) for Class B (plate) modulated AM or Class C CW. [13] It physically resembled the 808 described above, with the same "bulb" like shape and side grid contact, but which boasted lower inter-electrode capacitances.

The receiver was a war surplus BC-312, one of several ex-military models used by amateurs in the 1940s and '50s that just required the construction of a suitable power supply.

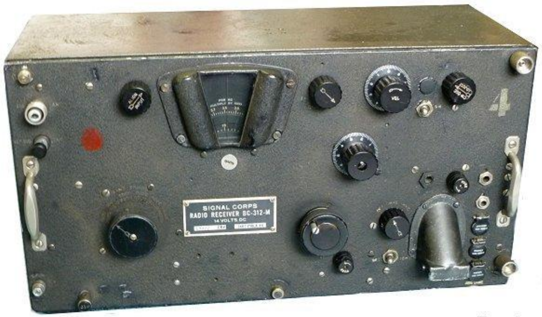
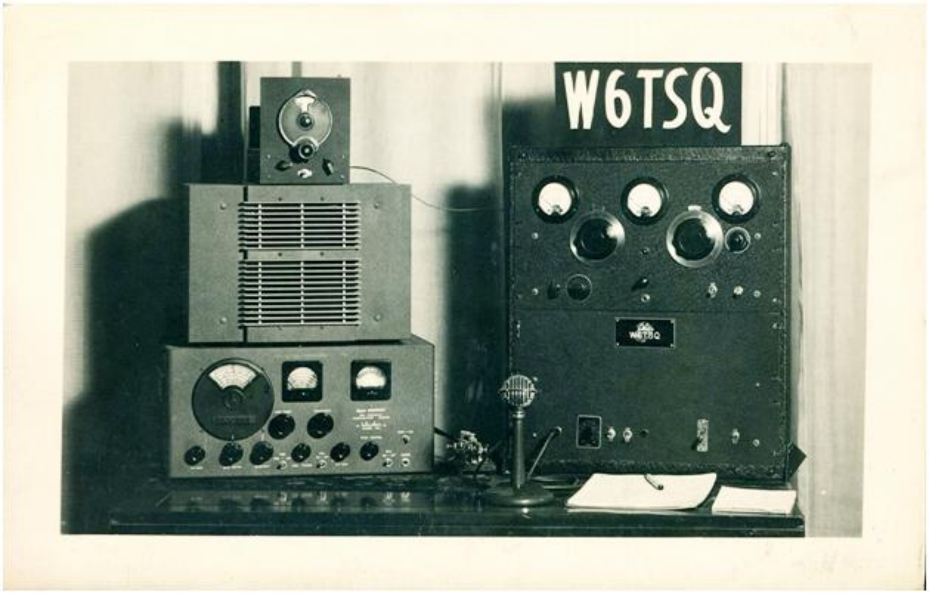


Figure 1

BC-312 – Image: http://www.jcgeocaching.nl/BC312.htm

The Way We Were, continued.

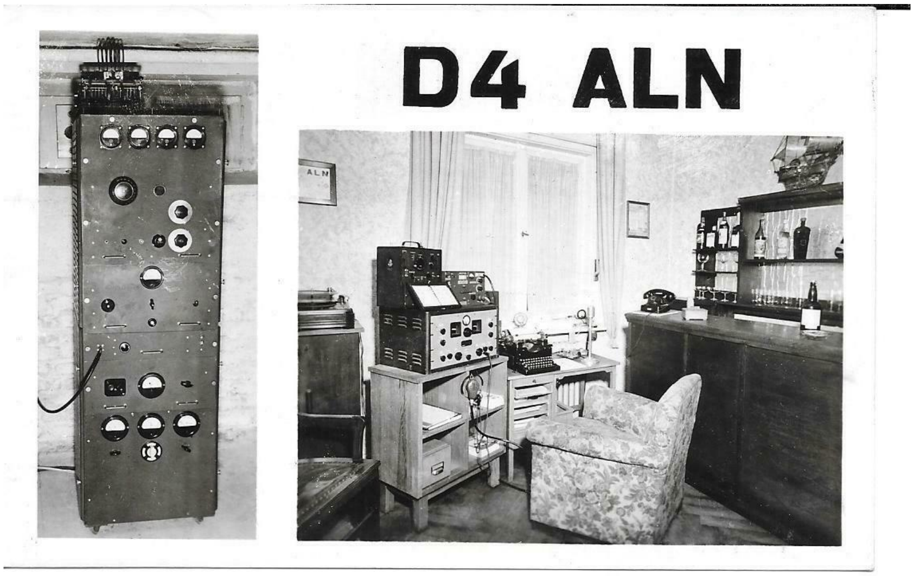
Also from 1947 is this neat example of transmitter construction at W6TSQ of San Francisco:



Although this transmitter resembles some of the Collins Radio transmitter designs of the late 1930s, it was the personal effort of the operator, as attested to by the nameplate with his call applied to the front panel. Unfortunately, no technical details are provided on the reverse side of the photo. A guess as to power would put it in the 50 to 75 Watt range, with an AM modulator and power supply in the lower half of the desktop cabinet.

The receiver is a Hallicrafters model SX-25, a single conversion superhet using 12 tubes, and covering 540 kilohertz through 42 Megahertz, AM and CW. It included six selectable crystal filter positions. [14] In those days, Hallicrafters was famous for naming their receivers, and the name applied to the SX-25 was “Super Defiant.” Sounds a little hostile, though, don’t you think?

So far, we’ve looked only at U.S. amateur stations, so let’s take a look at some foreign stations using homebrew equipment. Our first example is from D4ALN in 1948, which is actually an American serviceman stationed in occupied Germany.



Here we have a rather comfy station, licensed to M/Sgt. Charles Miller (call unknown), at Berlin Command Headquarters, but operated by Paul B. Mitchell, W4PDT, whose home QTH was Parish, Florida. [15] The

The Way We Were, continued.

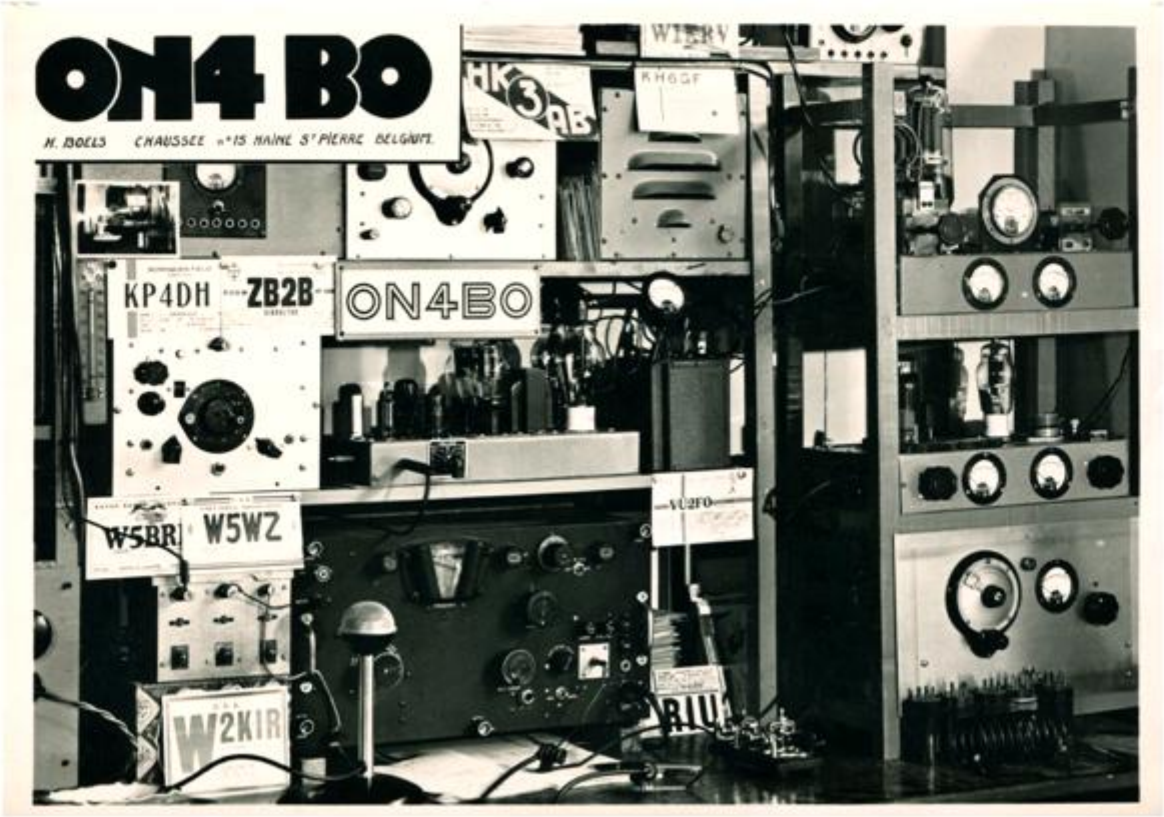
transmitter is described as running 500 Watts (input), crystal or VFO, and it could be remotely controlled. It is another steel rack panel job, with extensive metering of stages, and with an ATU on the top of the rack assembly.

The receiver is a BC-794-B “Super Pro” originally designed by Hammarlund, New York City, but produced by several contractors for the U.S. Military. The receiver used 16 tubes and covered 1250 kilohertz to 40 Megahertz in 5 bands. [16] It was roughly equivalent to the Hammarlund commercial model SP-400.

The antenna system at D4ALN was typical for military stations of the period, including amateur stations. It was a wire “V” Beam, each leg 487 feet long with 68 foot long (open wire) feeders.

Following World War II, Allied forces occupied Germany, Austria, Japan, and several Middle Eastern nations. The “D4” calls were assigned to American forces, “D2” to British, and “D5” to French forces. Later in the 1940s, these changed to “DL4,” “DL2,” and “DL5,” respectively. These calls remained active until the 1960s, after which they were re-assigned to German nationals.

From Belgium, here’s the station of Henri, ON4BO, of St. Pierre in 1948. It consists of two wooden racks, reminiscent of 1930s frame construction.

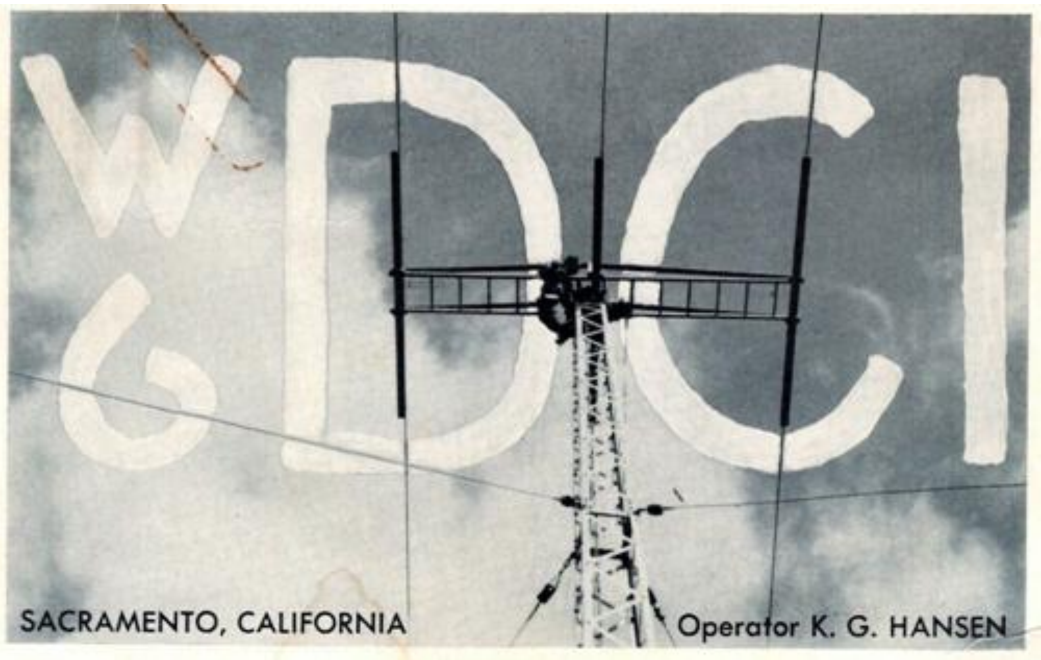


The transmitter, at right, uses two tubes, a 6L6 driving an 809 power amplifier. The bottom shelf holds a unit with vernier tuning, probably an E.C.O. At left are several homebrew units, and includes an American Army BC-312 receiver. The small “golf ball” microphone I recognize as one made by Brush Manufacturing, one of the premier makers of audio equipment during the 1940s through 1960s.

We haven’t looked at antennas. Not the simple, wire type, but multi-element beams, from back in the days when you had to build your own. Here are a couple of examples of beams homebrewed by amateurs in the 1940s.

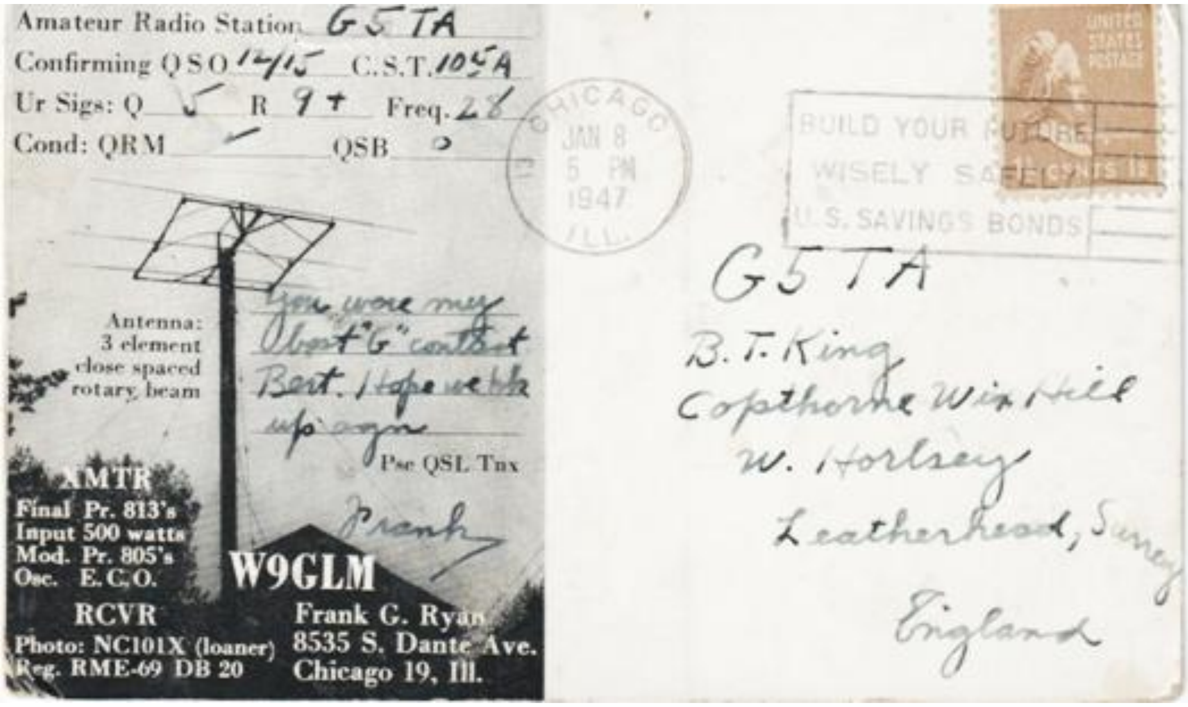
The Way We Were, continued.

The first is a good example from Sacramento, California, at the station of W6DCI sometime in the late 1940s:



Note that the "boom" of the beam is nothing more than a reinforced wooden stepladder and the elements are metal tubing mounted on wooden supports. This was the typical construction method for beams up to the early 1950s. From the size of those elements, my guess is that it is a 20 meter mono-bander.

This one, from W9GLM, Chicago in 1947, includes a square wooden framework for added mechanical strength.



Amateur Radio Station G5TA
Confirming QSO 12/15 C.S.T. 10$\frac{5}{}$A
Ur Sigs: Q 5 R 9+ Freq. 28
Cond: QRM ✓ QSB 0

Antenna:
3 element
close spaced
rotary beam

You were my
best "G" contact
Best. Hope we hk
up agn
Pse QSL Tnx
Frank

XMTR
Final Pr. 813's
Input 500 watts
Mod. Pr. 805's
Osc. E.C.O.

RCVR
Photo: NC101X (loaner)
Reg. RME-69 DB 20

W9GLM
Frank G. Ryan
8535 S. Dante Ave.
Chicago 19, Ill.

CHICAGO
JAN 8
5 PM
1947
ILL.

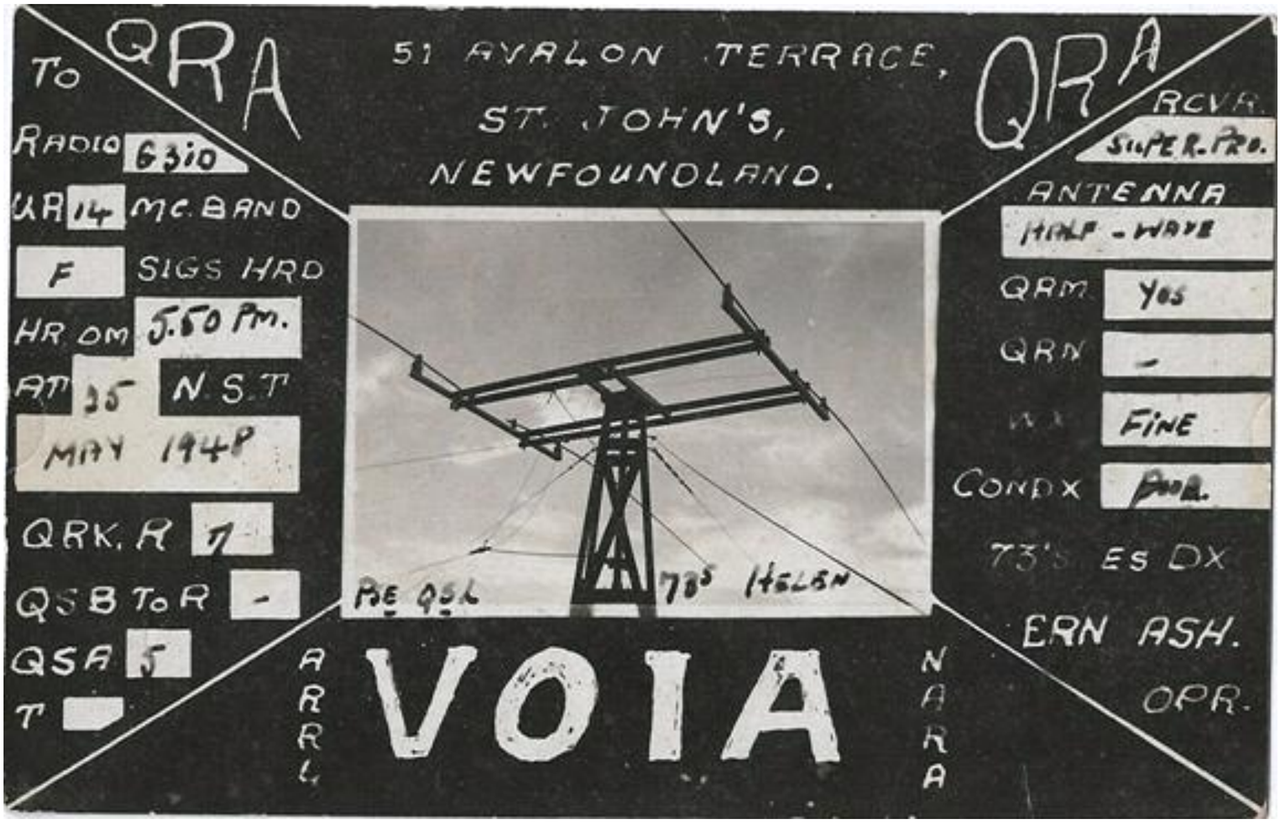
BUILD YOUR FUTURE
WISELY SAFELY
U.S. SAVINGS BONDS

UNITED STATES POSTAGE
1½ CENTS 1½

G5TA
B.T. King
Copthorne Wix Hill
W. Horlsey
Leatherhead, Surrey
England

Our final antenna example comes from VO1A, St. John's, Newfoundland in 1948:

The Way We Were, continued.



To QRA

51 AVALON TERRACE,
ST. JOHN'S,
NEWFOUNDLAND.

QRA

Radio 6310
UR 14 MC. BAND
F SIGS HRD
HR OM 5.50 PM.
AT 25 N.S.T
MAY 1948
QRK. R 7
QSB To R -
QSA 5
T

RCVR. SUPER-PRO.
ANTENNA HALF-WAVE
QRM Yes
QRN -
WX FINE
CONDX Poor.
73's ES DX
ERN ASH.
OPR.

PSE QSL 73's HELEN

ARRL VO1A NARA

This is another example of a reinforced construction method, again using wood, but with two sturdy cross arms, and not a ladder for the boom. The elements are supported on large standoff insulators. The tower also appears to be homebrew, and made of wood. The rugged construction shown here is what is to be expected, owing to the harsh Winters in VO-land.

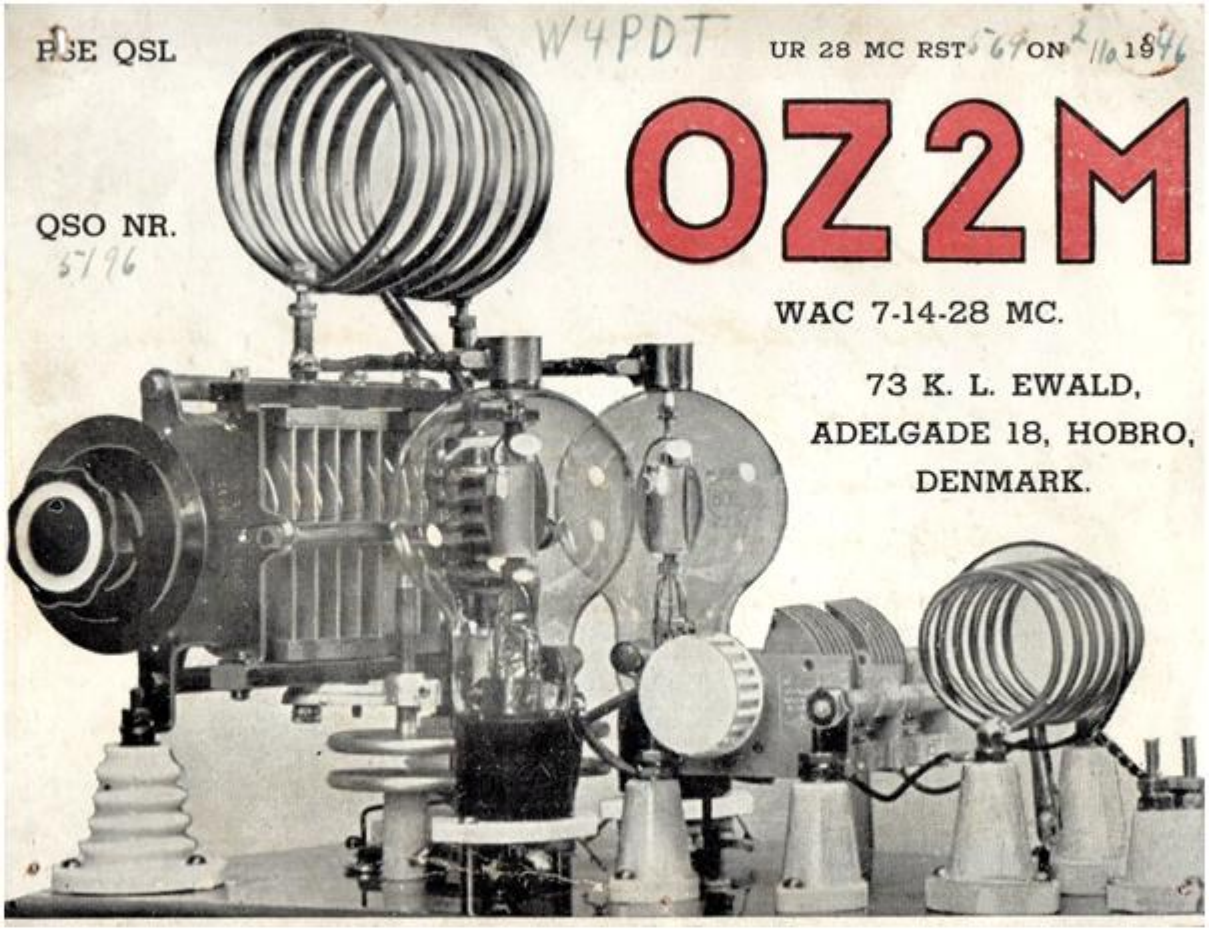
To me, there is something both beautiful and impressive about a homebrew, high power transmitter, with its glorious glass “bottles” glowing brightly; big variable capacitors; large, ribbed standoff insulators and large coils, often fabricated from copper tubing.

Such a thing of beauty speaks loudly on behalf of strong signals and many DX contacts, and reflects the sense of pride that can only come from an amateur’s personal expense and individual effort. Of such are dreams made, and soon realized.

I’ve saved the best for last. It is this, my all time favorite example of such a work of electronic art. The credit belongs to the builder, OZ2M, Mr. Kai Lykke Ewald of Hobro, Denmark, in the year 1946.

It is the final stage of his transmitter, and it sports a pair of Eimac 75Ts. Its input power was probably about 300 Watts on 40, 20, and 10 meters.

The Way We Were, continued.



This power amplifier stage includes a large, replaceable coil made from what looks like quarter-inch (or metric equivalent) copper tubing, with well spaced turns for handling high power. The large variable capacitor at left also uses well spaced plates. The small disc type objects below are neutralizing capacitors with screw adjustments. The input circuit at right consists of another coil, wound with small tubing or heavy gauge copper wire, with a dual ganged variable to couple and match exciter impedance to the output tank circuit. Most components are mounted on porcelain standoffs secured to a varnished wooden base, "breadboard" style.

OZ2M, wherever you are, I salute your radio artistry!

Until next month, and another installment of this series on the homebrew art…

73,

Fred W2AAB

NOTES are found on the next page.

The Way We Were, continued.

NOTES:

[1] “The First Hallicrafters Skyrider: A Report by the Technical Editor of Radio News, August, 1934,” at: http://www.antiqueradios.org/gazette/Hallicrafters1.htm

[2] “The Super Skyrider (SX-16) Manual, *The Hallicrafters, Incorporated,* 1938, at: https://worldradiohistory.com/Archive-Early-Radio-Assorted/SX16.pdf

[3] “1937 Hallicrafters SX-16 Super Skyrider,” *The Radio Room, Station AJ8MH,”* at: http://www.aj8mh.com/sx16.html

[4] “Complete Instructions For The Meissner Signal Shifter,” at: https://worldradiohistory.com/hd2/IDX-Site-Early-Radio/Archive-Books-Early-Tech-IDX/IDX/Meissner-How-to-Build-Radio-Receivers-40's-OCR-Page-0166.pdf

[5] “Instruction and Installation of Meissner Signal Shifter Model EX,” at: http://www.museumofyesterday.org/museum/page7_graphics/manuals/meissner_signal_shifter_complete.pdf

[6] *Wikipedia* article, “Wireless Set No. 19,” at: https://en.wikipedia.org/wiki/Wireless_Set_No._19

[7] Grayson, Kenneth B., W2HDM, *Surplus Schematics Handbook,* Cowan Publishing Corp., 1960, at: http://www.introni.it/pdf/Grayson%20-%20Surplus%20Schematics%20Handbook%201960.pdf

[8] Op Cit., Note [6]

[9] “808 Transmitting Triode,” *R.C.A. Tube Datasheet,* April 15, 1947, Harrison, N.J., at: https://frank.pocnet.net/sheets/049/8/808.pdf

[10] “811 Transmitting Triode.” *RCA Guide for Transmitting Tubes,* R.C.A. Manufacturing Co., Camden, NJ, 1942, at: https://worldradiohistory.com/Archive-Catalogs/RCA/RCA-Transmitting-Tubes-1942.pdf

[11] “National Radio Products 1947,” *National Radio Co.,* 1947, Malden, Massachusetts, at: http://n4trb.com/AmateurRadio/National/NationalCompany/National_Radio_Products_1947.pdf

[12] “Howard Radio Company – Chicago, Illinois,” at: http://n7rk.com/howard.htm

[13] “75T” (Data Sheet), *Eitel-McCullough, Inc.,* San Bruno, CA, n.d., at: http://www.tubecollectors.org/eimac/archives/75t.pdf

[14] “Favorite Tube-Type Shortwave Receivers: Hallicrafters SX-25 Super Defiant,” at: https://www.dxing.com/rx/sx25.htm

[15] *Radio Amateur Call Book Magazine,* Fall, 1947 Edition, at: https://archive.org/details/Fall_1947_Radio_Amateur_Callbook/Fall_1947_Radio_Amateur_Callbook_District_4/page/n15/mode/2up

[16] “TM-11-866 Technical Manual: Radio Receivers BC-779-B, BC-794-B, , and BC-1004-C and Power Supply Units RA-74-C, RA-84-B, and RA-94-A,” *War Department,* June 4, 1943, at: http://www.radiomanual.info/schemi/Surplus_NATO_BC/BC-779B_BC-794B_BC-1004C_RA-74C_RA-84B_RA-94A_serv_user_TM11-866_1943.pdf

Ed - itorial : How Much Is Enough?

The club passed a milestone on January 1st – for the first time, club membership passed the two hundred (200) paid mark and now totals around 226. It's obviously renewal time so all numbers may vary.

But two hundred is astounding and puts FLARC in the rarified atmosphere few clubs ever attain. But there is a question that comes with it—how much is enough? The member number helps support several activities, as dues revenue provides a nice flow of income to the club.

But when does quantity come at the sacrifice of quality? Certainly, there has been a lot less overall participation by club members in the last two years; but is it from COVID or perhaps is something else going on? The 2023-member survey dwells on this in more detail. But more on that later.

The "quality-quantity" issue was put to me bluntly by a club member recently who suggested that perhaps the club should go from open membership to having a club where one needs to be qualified to join. There are a few NNJ clubs that have prospective members be reviewed by either a group of members or by the club as a whole and are then "admitted" rather than "join" the club.

Why would such a change be required? "We need active members and not a body count" was the phrase used by this current member. There are other NNJ clubs that already do this.

I vaguely recall that this might have been the process when I was a member of another club about forty years ago — they looked me over and said "yes"; WX2R is good enough to join. (Why is another story).

Such a change I think would be quite radical.

- ❖ Does peer approval and selection make you a better club member? Selective admittance is one that raises a lot of potential questions.
- ❖ Do the current bylaws support such a move?
- ❖ Would being a town-sponsored club affect such a change?
- ❖ Is peer acceptance discriminatory among a social group such as ours?
- ❖ Is being a member who pays their dues, reads the newsletter and maybe does nothing else less than a "member" who is far more active?
- ❖ For those who are active in multiple clubs (more than half of our current membership) are they equally active in all?

Ed - itorial, continued.

Over the last few member surveys there are a couple of points that remain clear.

One is that a majority of members (60%+) say that FLARC "should grow in both size and reputation; it's one of the best clubs around." That percentage has remained the same whether the total paid member count was 67, 125, or 187.

Second is the number of comments that FLARC is "the friendliest club around" because of its openness and friendly members. Would selective admittance change that? I don't know.

Yet the question is pertinent. Do we need more members involved in the club? Without doubt it would be great to see more involved and taking advantage of all the club now offers. Would a litmus test change that?

Only you can decide.

DE Ed WX2R

2023 Member Profiles

Here are this year's member profiles. An index of previous years can be found elsewhere in this issue. All profiles can be found in the newsletter archives on the FLARC website.

http://newsletters.fairlawnarc.org/

Month	Name	Callsign
January 2023	**Victor**	**WA2RCC**
February	**Tom**	**KB2ESE**
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

Digital Voice SIG Update

DigiVoice@FairLawnARC.groups.io

A Special Interest Group SIG for those interested in Digital Voice modes (Digital Mobile Radio) communications and software.

DMR nets are becoming more active on Tuesday evenings at 7:00pm on the Brandmeister TalkGroup 310015.

Those with DMR radio and hotspot are welcome to join in. Those who would like to but do not know how, join the group and ask, we will help.

An interesting new project was brought up during one of the digital voice nets. It is "Hamshack Hotline." More to come in the future or for those who can't wait look it up online.

We would like to thank Brad for the use of TG 310015.

There is also a FLARC "digital-voice" channel on slack for "real time chat" and a sub-group on our host at

https://FairLawnARC.groups.io/g/DigiVoice/

For those interested in joining

Radio Monitoring Special Interest Group Update

monitoring@FairLawnARC.groups.io

A Special Interest Group SIG for those interested in SWL and other radio communications monitoring.

SWL Musings from the Sunshine State

I'm about three weeks in for our annual Florida Winter sabbatical and the monitoring from down here is worth some notations.

First is the difficulty in logging European stations from outside of our location near West Palm Beach. I mentioned this casually to Scott Yarney N8SY and to our Gordon W2TTT and they both said that it is as much fact as observation. Latitude matters. As Gordon points out: "the Canary Islands are like working North Carolina." And it is true. I have an EA call in my log nearly every day and Radio National de Espana is on the speaker right now as I write this.

Africa is also a bit more of a laydown. I've worked Reunion and South Africa the first week on the ham bands; but I also have become a regular listener of Radio Algeria and Moroccan radio in the early evening on shortwave.

I'm using a Sony 7300 with a window attachment for the antenna and it seems to do FB here.

Bahama's ZNS Hamilton 810 is ground wave in the car, much to my wife Barbara's usual tolerance with its wide array of calypso, news, and church services. So close yet so far.

Here are some of my other logs:

(Frequency/station/time in UTC/date)

Receiver is an Icom 718 and long wire stretched across our rental property up 50 feet. (Don't tell the owner!)

BRAZIL
4885, Radio Clube do Pará, Belém, 0535-0610, 20-02, relaying Radio Bandeiranes news.

6180, Radio Nacional da Amazonia, Brasilia, 2055-2119, 19-01, Brazilian songs, comments. // 11780.

Also heard 0806-0824, 20-01, the weather "Previsao do tempo na Radio Nacional", comments, Brazilian songs.

Continued on next page.

Radio Monitoring SIGroup Update, continued.

9819, Radio 9 de Julho, Sao Paulo, 0725-0747, 20-01, religious songs and comments, id. at 0730 “Radio 9 de Julho, Radio 9 de Julho, AM 1600”.

15190, Radio Inconfidencia, Belo Horizonte, 1959-2017, 19-01, program “A Hora do Fazendeiro”, comments, Brazilian songs.

CONGO

6115, Radio Congo, Brazzaville, 1801-1638*, 19-01, French, news, female, male, id. “Radio Congo”, “Les Congolaises”, “Brazzaville”, at1829 id. “Radio Congo, Radio Congo”, Africa pop and African songs, new
id. At 1836 “Chers auditers, Radio Congo...”.

CUBA

15140, Radio Habana Cuba, Bauta, 1648-1657, 19-01, Spanish, comments, id. “Radio Habana Cuba”, 1656 “Información meteorológica a través de Radio Habana Cuba.”

ETHIOPIA

6110, Radio Fana, Addis Ababa, 0506-0533, 20-01, Vernacular, comments.

MALI

5995, Radio Mali, Bamako, 0605-, 20-01, non- stop military music, Vernacular, comments, more military music, id. “Radio Mali”, at 0701 Vernacular, news. I have searched in Google for what event was today in Mali, due to military music, and today January 20 is the Army Day.

MEXICO

6185, Radio Educación, 0510- , 20-01, Spanish, comments, id.“Radio Educación”, classical music.

TAJIKISTAN

4765, Tajik Radio, Dushanbe, 1744- , 19-01, Tajik comments. 15321.

USA

unknown transmitter site, 7505, Radio Free Europe, 1643-1714, 19-01, nonstop identification from 1643 to 1700 “This is Radio Free Europe-Radio Liberty”, at 1700 program in Romanian, “Radio Europa Libera”, comments.

Good DX!

De Ed WX2R

2023 Member Survey Preview

Last year we asked what area(s) the club should focus its efforts on in the coming year.

Following up with local hams who are not FLARC members is the greatest outreach priority for members.

The summary:

▪ Current FLARC members who do not participate more regularly:	59%
▪ Local hams who are currently not FLARC members:	57%
▪ Fair Lawn public schools and their local STEM /STEAM programs:	39%
▪ Local Boy /Girl Scout troops :	27%

Winter Field Day

Noel W2MSA

Winter Field Day 2023 was another successful event for FLARC.

I would like to thank the 20 plus people who contributed in many different ways; because of your support this event was successful.

This year we used the Ridgewood OEM tent shelter which came with a Honda 3000 generator and a propane heater and four large propane tanks. Setup went as smoothly as can be, thanks to the amount of people who showed up.

We had two stations running, CW and SSB, simultaneously – with plenty of operators to enjoy this fun event.

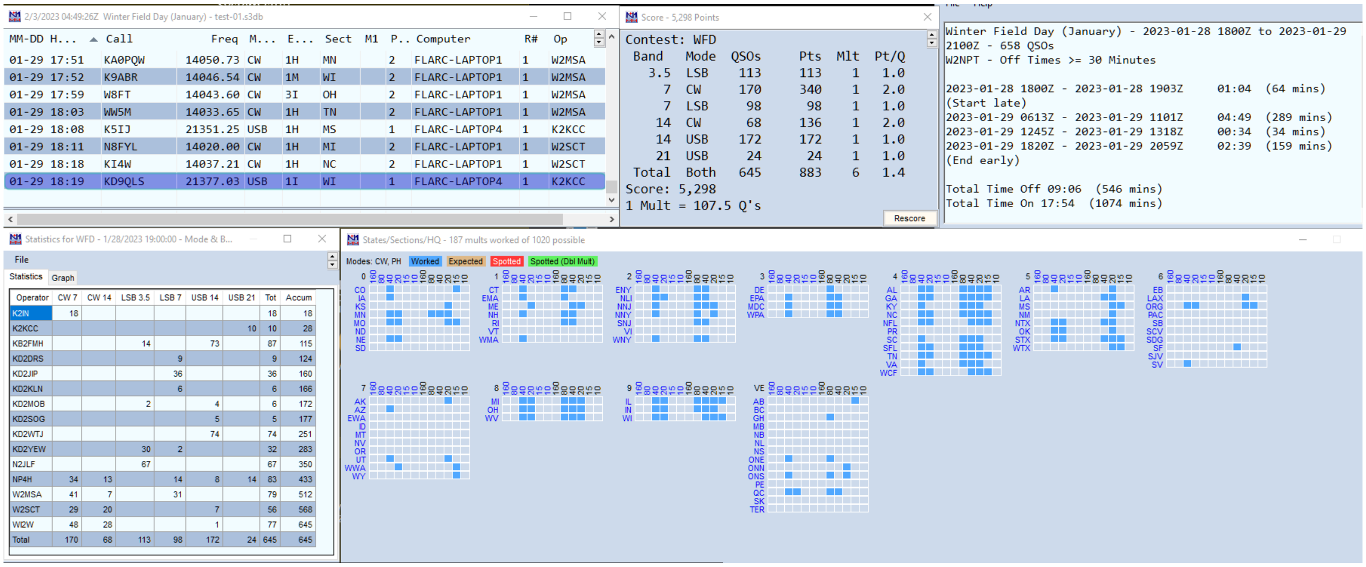
I believe everyone had a great time. We were all ready to go two hours before the start time; everyone had a chance to operate our stations, and to experiment with different antennas and gear.

These events are all about putting our skills to the test in order to become better amateur radio operators. We did it once in the summer and now again in the winter.

Setting up a station from A-Z is a skill that every ham radio operator should possess and events like this are the perfect time to learn and mentor.

We had some visitors from the Three Mosquitoes Antenna Company — Lou K2TAC, Metin K2ECE and Matt K2ATV. They had a great time and even assisted Ken W2SCT with his portable hex beam. They also donated a couple of their antennas to our club.

Mike KD2YEW was able to test his QRP station before the event and Jim N2JLF made many successful contacts while testing his Winlink station overnight.


2/3/2023 04:49:26Z Winter Field Day (January) - test-01.s3db
Score - 5,298 Points
Rescore
Statistics for WFD - 1/28/2023 19:00:00 - Mode & B...
File
Statistics
Graph
States/Sections/HQ - 187 mults worked of 1020 possible
Modes: CW, PH
Worked
Expected
Spotted
Spotted (Dbl Mult)
0
CO IA KS MN MO ND NE SD
1
CT EMA ME NH RI VT WMA
2
ENY NLI NNJ NNY SNJ VI WNY
3
DE EPA MDC WPA
4
AL GA KY NC NFL PR SC SFL TN VA WCF
5
AR LA MS NM NTX OK STX WTX
6
EB LAX ORG PAC SB SCV SDG SF SJV SV
7
AK AZ EWA ID MT NV OR UT WWA WY
8
MI OH WV
9
IL IN WI
VE
AB BC GH MB NB NL NS ONE ONN ONS PE QC SK TER
160 80 40 20 15 10

```
MM-DD H...   Call          Freq  M... E... Sect  M1  P.. Computer       R#  Op
01-29 17:51  KA0PQW    14050.73  CW   1H   MN        2   FLARC-LAPTOP1  1   W2MSA
01-29 17:52  K9ABR     14046.54  CW   1M   WI        2   FLARC-LAPTOP1  1   W2MSA
01-29 17:59  W8FT      14043.60  CW   3I   OH        2   FLARC-LAPTOP1  1   W2MSA
01-29 18:03  WW5M      14033.65  CW   1H   TN        2   FLARC-LAPTOP1  1   W2MSA
01-29 18:08  K5IJ      21351.25  USB  1H   MS        1   FLARC-LAPTOP4  1   K2KCC
01-29 18:11  N8FYL     14020.00  CW   1H   MI        2   FLARC-LAPTOP1  1   W2SCT
01-29 18:18  KI4W      14037.21  CW   1H   NC        2   FLARC-LAPTOP1  1   W2SCT
01-29 18:19  KD9QLS    21377.03  USB  1I   WI        1   FLARC-LAPTOP4  1   K2KCC
```

```
Contest: WFD
 Band   Mode  QSOs    Pts  Mlt  Pt/Q
   3.5  LSB    113    113    1   1.0
     7  CW     170    340    1   2.0
     7  LSB     98     98    1   1.0
    14  CW      68    136    1   2.0
    14  USB    172    172    1   1.0
    21  USB     24     24    1   1.0
 Total  Both   645    883    6   1.4
Score: 5,298
1 Mult = 107.5 Q's
```

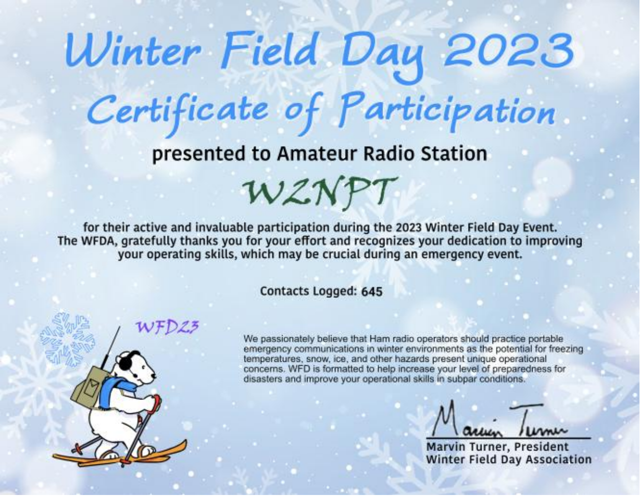
```
Winter Field Day (January) - 2023-01-28 1800Z to 2023-01-29
2100Z - 658 QSOs
W2NPT - Off Times >= 30 Minutes

2023-01-28 1800Z - 2023-01-28 1903Z    01:04  (64 mins)
(Start late)
2023-01-29 0613Z - 2023-01-29 1101Z    04:49  (289 mins)
2023-01-29 1245Z - 2023-01-29 1318Z    00:34  (34 mins)
2023-01-29 1820Z - 2023-01-29 2059Z    02:39  (159 mins)
(End early)

Total Time Off 09:06  (546 mins)
Total Time On 17:54  (1074 mins)
```

Operator	CW 7	CW 14	LSB 3.5	LSB 7	USB 14	USB 21	Tot	Accum
K2IN	18						18	18
K2KCC						10	10	28
KB2FMH			14		73		87	115
KD2DRS				9			9	124
KD2JIP				36			36	160
KD2KLN				6			6	166
KD2MOB			2		4		6	172
KD2SOG					5		5	177
KD2WTJ					74		74	251
KD2YEW			30	2			32	283
N2JLF			67				67	350
NP4H	34	13		14	8	14	83	433
W2MSA	41	7		31			79	512
W2SCT	29	20			7		56	568
WI2W	48	28			1		77	645
Total	170	68	113	98	172	24	645	645

Bonus Points:	500 pts	Non-commercial power
	500 pts	Outside operation
	500 pts	Away from home
	500 pts	Temp antennas

Our final score will ultimately be determined by the log-checking robot !

Winter Field Day • 2023



Winter Field Day 2023

Certificate of Participation

presented to Amateur Radio Station

WZNPT

for their active and invaluable participation during the 2023 Winter Field Day Event.
The WFDA, gratefully thanks you for your effort and recognizes your dedication to improving your operating skills, which may be crucial during an emergency event.

Contacts Logged: 645

WFD23

We passionately believe that Ham radio operators should practice portable emergency communications in winter environments as the potential for freezing temperatures, snow, ice, and other hazards present unique operational concerns. WFD is formatted to help increase your level of preparedness for disasters and improve your operational skills in subpar conditions.

Marvin Turner

Marvin Turner, President
Winter Field Day Association

Outside the tent from Ridgewood OEM

Inside the tent from Ridgewood OEM

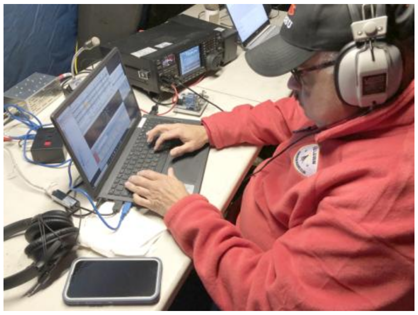
Part of the group

Operating the CW station

The 3 Muskateers visit the club

And donate an antenna

NP4H tunes for a station



And logs his catch

Designing a 3-D Model and Slicing

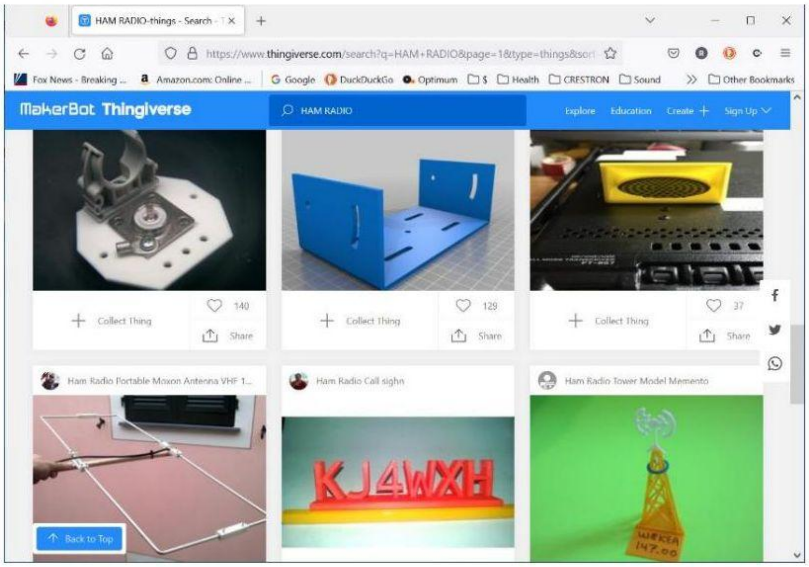
Bob Holstrom – KD2BKD

Designing a 3D Model and Slicing

By Robert Holstrom – KD2BKD

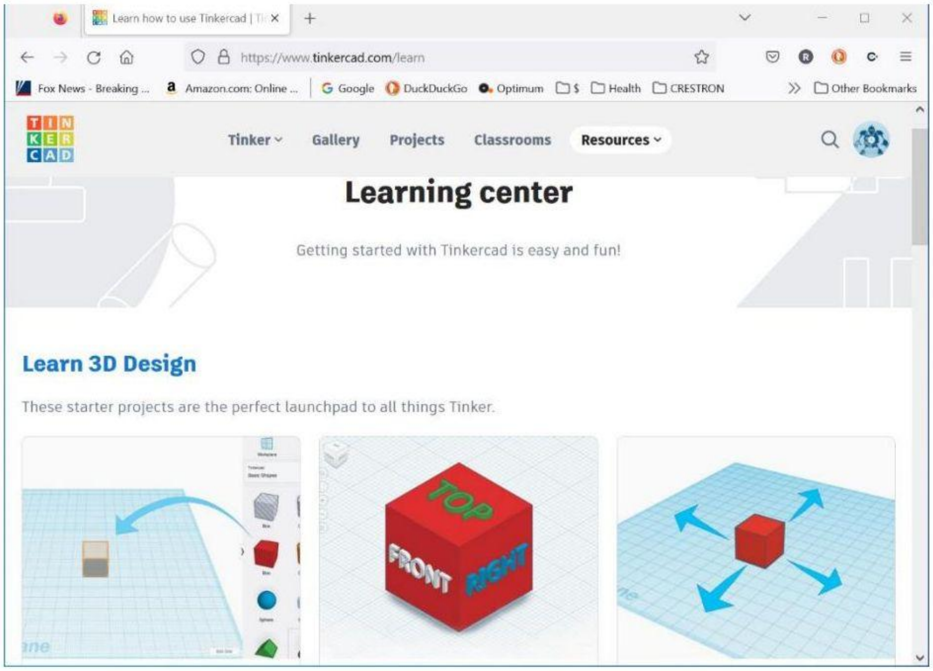
As 3d printers become more popular, designing and fabricating plastic parts is of great interest.

Typically, in the beginning of getting a 3d printer one goes to the internet to download the 3d models. Many models can be found at: https://www.thingiverse.com/ and other similar sites. When I say many there are hundreds of thousands of designs. There is a search feature to make finding designs easier.


HAM RADIO-things - Search
https://www.thingiverse.com/search?q=HAM+RADIO&page=1&type=things&sort
MakerBot Thingiverse
HAM RADIO
Explore
Education
Create
Sign Up
Collect Thing
140
Share
129
37
Ham Radio Portable Moxon Antenna VHF 1...
Ham Radio Call sighn
Ham Radio Tower Model Memento
KJ4WXH
Back to Top

Now if you find the design you like it will typically be a STL file download. A STL stands for stereolithography and describes the surface geometry of a 3d object. The STL file typically needs to go thru the Slicing process for use on a 3d printer.

One can also design a 3d object using many different CAD programs. I have tried many but am most comfortable using Tinker CAD at https://www.tinkercad.com/ . Tinker Cad is a web-based design system which is similar to stacking blocks. The blocks can also be cylinders, cones, triangles, etc. The blocks can also be turned in to a Hole. Holes do not need to be round and is a blank object that is taken away from a solid object. Tinker CAD has the ability to download a STL files to be used for Slicing.


Learn how to use Tinkercad
https://www.tinkercad.com/learn
TIN KER CAD
Tinker
Gallery
Projects
Classrooms
Resources
Learning center
Getting started with Tinkercad is easy and fun!
Learn 3D Design
These starter projects are the perfect launchpad to all things Tinker.
TOP
FRONT
RIGHT

There are online classes and learning center within the Tinker CAD web site.

If you have a question on Tinker CAD I may be able to help.

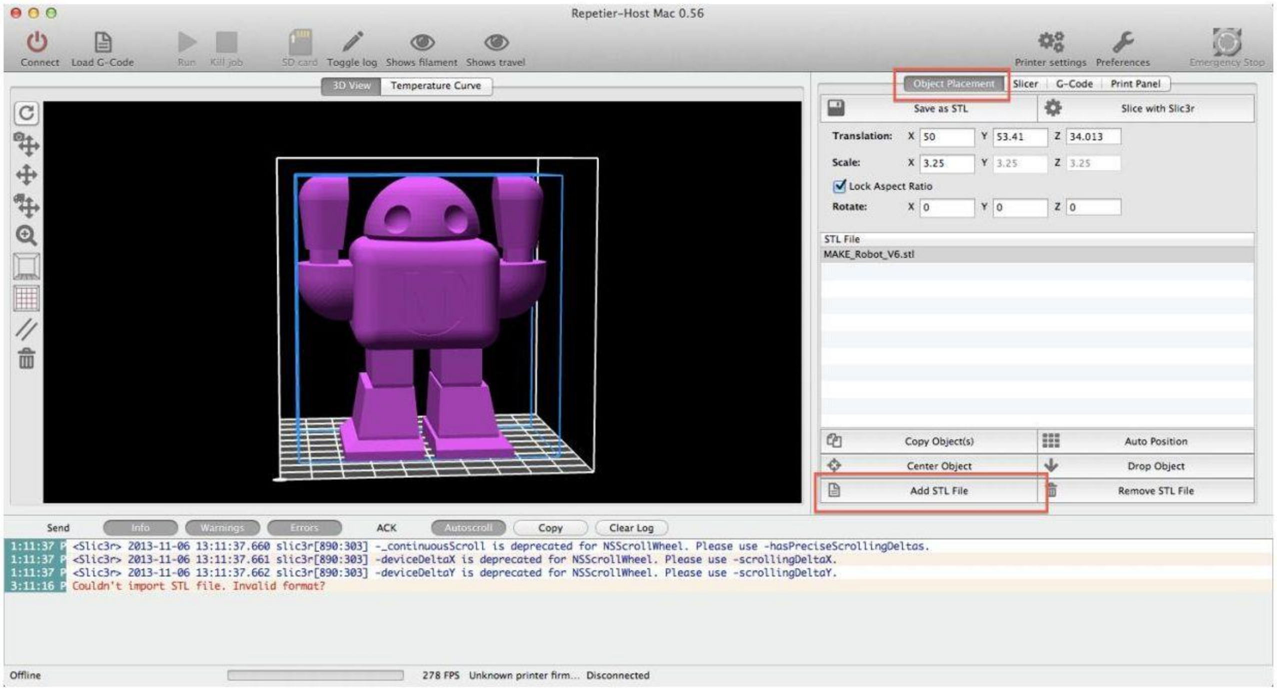
Tinker CAD also now has Circuits and Codeblocks which I am not familiar with.

Bob Holstrom – KD2BKD, continued.

Now once you have a STL file it needs to be converted to layers for the 3d printer to use. This is done by using a Slicer program to convert the STL file to machine g-code. Many different Slicer programs are out there but I am only familiar with Repetier-Host because that is the one suggested for use with the RepRap kit. The proper configuration files were given with the kit and documentation on how to use them. I am sure most Slicer programs are similar.

Repetier-Host is available for Windows, Linux, and Mac. It is free but suggested if you like it to donate for future development. To start off you need a 3d model of the object first as a STL file. There are tutorials on how to do this at: https://www.repetier.com/tutorials/ but I will go over the very basics.

First the STL file needs to be opened in Repetier-Host. It should come in as a 3d model and placed on a virtual printer plate. The model can be moved with mouse.



Translation: X 50 Y 53.41 Z 34.013
Scale: X 3.25 Y 3.25 Z 3.25
☑ Lock Aspect Ratio
Rotate: X 0 Y 0 Z 0

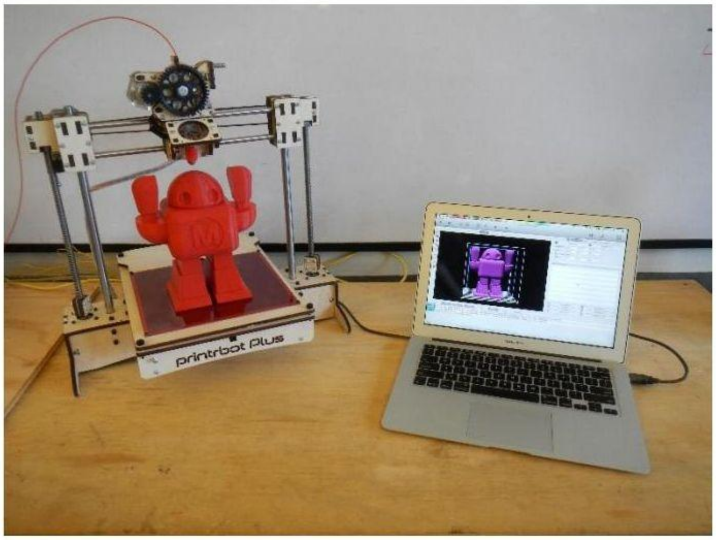
STL File
MAKE_Robot_V6.stl

```
1:11:37 P <Slic3r> 2013-11-06 13:11:37.660 slic3r[890:303] -_continuousScroll is deprecated for NSScrollWheel. Please use -hasPreciseScrollingDeltas.
1:11:37 P <Slic3r> 2013-11-06 13:11:37.661 slic3r[890:303] -deviceDeltaX is deprecated for NSScrollWheel. Please use -scrollingDeltaX.
1:11:37 P <Slic3r> 2013-11-06 13:11:37.662 slic3r[890:303] -deviceDeltaY is deprecated for NSScrollWheel. Please use -scrollingDeltaY.
3:11:16 P Couldn't import STL file. Invalid format?
```

Offline 278 FPS Unknown printer firm... Disconnected

Slicing is then done on the model to compute the printer head path for each layer for the particular printer and a g-code file is produced to go to the 3d printer. Prior to doing the slicing, Repetier-Host needs to know how your 3d printer is configured. I was lucky in that the file for the RepRap was available for a basic plug and play setup.

Then send the g-code file to the printer either by direct USB connection or copy to sd card. Sd card would then go into the printer to fabricate the part.



Around the Shack

Hal Kennedy N4GG

Immutable Laws, Common Occurrences

Hardware

Outdoor repairs will take place in rainstorms or snowstorms.
In the dark.
When it's windy.
When it's freezing cold or unbearably hot.

When you measure something with probes, the meter will read backwards. But, Murphy's law has a time constant. If you reverse the probes at the last possible moment before connecting, the meter will read correctly. But you have to be fast!

Murphy's Law of non-reciprocal outcomes:
If it's right it will be wrong.
If it's wrong it will be wrong.

Difficult repair tasks requiring concentration will be interrupted to repair tools.

Transmission lines are always a foot too short.
This also applies to antenna wire, line cords, RS-232 cable, etc.

The better your antenna party is organized (beer purchased, pizza ordered),
the more likely the key guy, the one bringing the climbing belt, will be a no-show.

Handbooks are either too thick or not thick enough to even out the leg of the operating table.

Resistor and capacitor markings occasionally do not follow the conventions.

You don't have the fuse you need.

If it's breakable it will break at the last step of installation.

The tip on your soldering iron will fail when you need it most.
It does not matter what type of soldering iron.

Your major manufacturer's service department is backed up for four months.

Radio Clubs

Last month some of the guys parked on the grass.
The last guy out didn't put the chairs away.
We have lost our meeting room.

The guy responsible for donuts did not show.
The coffee was cold, weak and we ran out.

The presenter was 45 minutes late and not prepared.

Nobody will run for office.

Dues are $5 per year.
There are complaints that's too much.

>>> more …

Around the Shack, continued

DX

The station you worked for the honor roll does not QSL.

The card you received has a mistake. You can’t get another.

RFI noise comes and goes in sync with rare DX.

Your distance away from home (and your rig) is proportional to the rarity of the DX.

Shortly after the DX’pedition goes QRT, your QSO disappears from their log.

Presentations

200 words per vugraph, yellow type on white background, no pictorials.

Comic Sans type font.

45 minutes allocated, 90 minutes taken to explain 20 minutes of material.

Most of what was presented was wrong. Now what?

Computer will not read the file.
Computer will not talk to the projector.

Microphone broken.

Batteries in wireless microphone are dead.

Fire alarm interrupts half-way through.

Presentation on “The Effect of Non-Linear Manifolds in Hilbert Space on 24 GHz band propagation” not well received.

Operating

“You are on the list.”

“He gave you 3/1, good contact.”

“I’m new to ham, can you help me do a MARS mod?”

“Please copy.”

“This frequency has been in use since 1957, thanks for asking.”

“Just replaced my 3-tube 77SX with this OM4000.”

“Rig here has the filters removed for eeeeeSSB.”

Just got awards from DARC (took 16 weeks) and from ARRL (took 16 months).

“Microphone here is a Loudenboomer 12,000 — the one with the three stage preamp.
It’s feeding a W9HI-FI-WHY equalizer/compressor/noise gate/parametric filter/clipper.
It doesn’t sound good? It must be your receiver.”

73,

Hal N4GG

Satellite Special Interest Group Update

Satellite-SIG@FairLawnARC.groups.io

A Special Interest Group SIG for those interested in amateur radio satellites, as well as others like weather, GPS, etc..

We welcome everyone interested in all types of satellite communications. Some interests are AMSAT, ARISS, receiving weather maps from satellites, APRS via ISS, and much more.

Listening to contacts between students interacting with astronauts aboard the ISS can be heard on 145.800 MHz. Upcoming educational ISS contact schedule is available at:

https://www.ariss.org/upcoming-educational-contacts.html

Status of ISS ham radio stations as of January 22, 2023:

Columbus Module radio:

Kenwood D710GA (CONFIGURED) mode is for cross band repeater (145.990 MHz up {PL 67} & 437.800 MHz down). Powered off during docking and undocking of crafts.

Service Module radio:

Kenwood D710GA (CONFIGURED) mode is for packet operations APRS (145.825 MHz up & down). Powered off during docking and undocking of crafts.

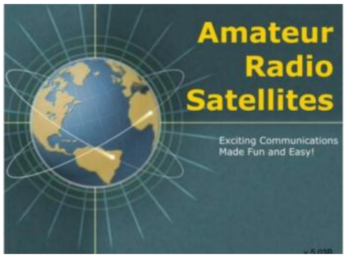
For current status of ARISS:

https://www.ariss.org/current-status-of-iss-stations.html

To track the ISS:

https://www.whereisthespacestation.com/

For those interested in joining the Satellite-SIG, go to the club website www.FairLawnARC.org and use the "Join Special Interest Group(s)" link on left.



In A Nutshell

Winter is upon us but there is still a lot of activity on the bands.

For me it is 'rag chewing' on 75 meters, including my nightly foray on 3855 with the "Awful, Awful Ugly Net." I like the human side of ham radio and leave the digital side to others. Band conditions have been sometimes great but also very poor, you can never tell till you 'get there.'

Just keep warm in the shack and upgrade your indoor things as Spring will hopefully be here before you know it. January has been a weather crazy month for us in northwest New Jersey.

We had snow, then rain then gale winds but the antenna on my part is still up and working. For those of you with limited equipment and resources, do not let that stop you from getting on the air to TALK to SOMEONE!

Ham radio is a HOBBY and it is people that make it happen. For safety's sake unplug your antennas when not in use AND your amplifier - especially if it is solid state! We have had several instances of "thunder snow" in the past few weeks.

Stay safe and warm.

Fred Wawra, W2ABE, 73.

It's About Us...
The 2023 FLARC Member Survey

From an amazing 120+ returned questionnaires during January, Ed WX2R will walk us through the findings and recommendations on Friday, March 24th via Zoom.

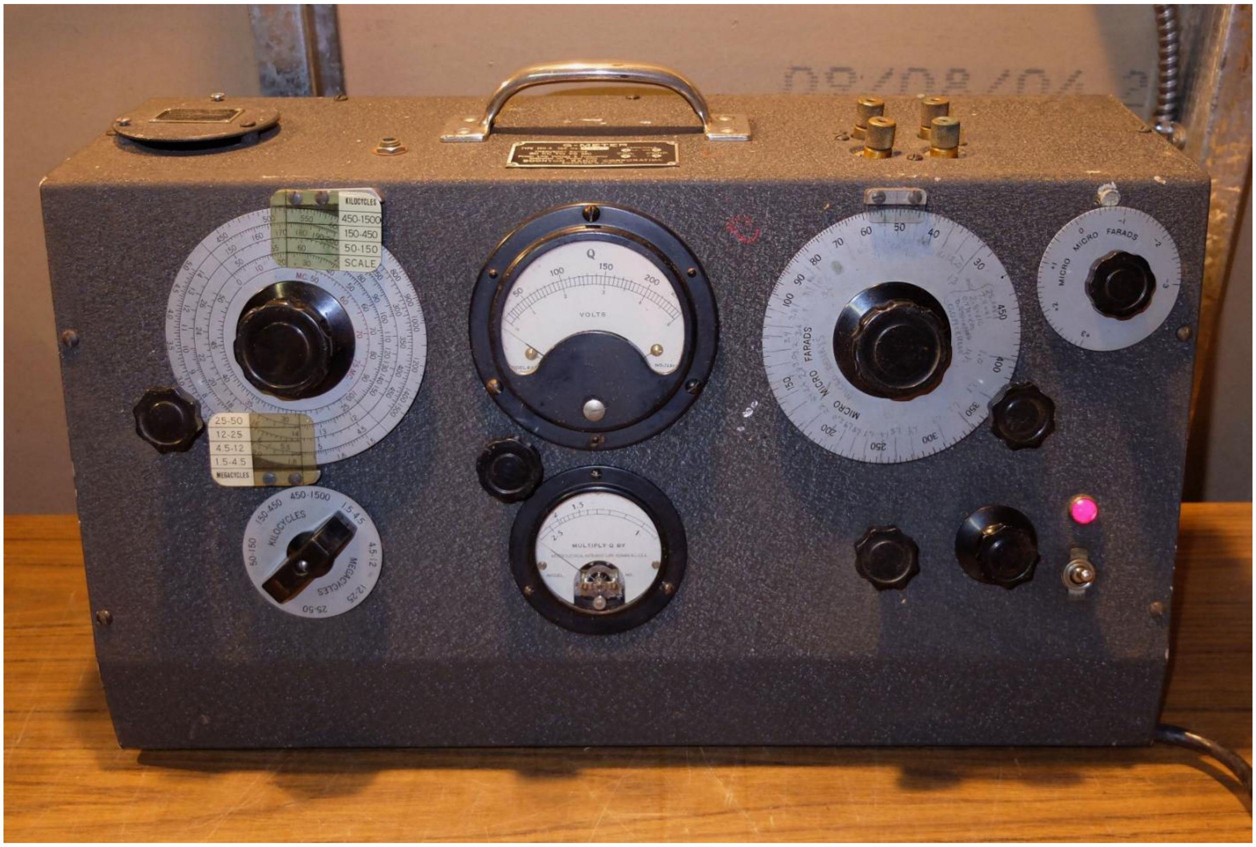
This year's survey looks at member interests and opportunities to help grow what has become New Jersey's largest amateur radio club.

The presentation will also include a discussion of future direction for the club -- a chance to plan our future and get as many club members involved who wish to be.

So come learn and contribute -- it's about us.

What Is It? – Answer To Last Month's Question

By: Fred Belghaus W2AAB



I'm surprised that there was only one correct answer to this one. Congrats to Alan, WB2HJZ for identifying this classic instrument as a Boonton Radio Corp. Model 160-A "Q" Meter.

What is "Q?" "Q" is "Quality Factor" and is defined as the ratio between the reactance and resistance of a coil or capacitor, expressed by the following equations:

Of an inductor: $Q = 2\pi fL/R$

Of a capacitor: $Q = 1/2\pi fCR$

The "Q" in circuit design is essential for determining the "figure of merit" in reactive elements (inductive and capacitive). The "Q" of a resonant circuit is determined by applying a known voltage in series with one of the circuit elements and measuring the voltage across one of the circuit reactances when the circuit is resonated to the frequency of the applied voltage.

The ratio of the voltage across the reactance to the applied voltage is the "Q" of the circuit. If the applied voltage is constant, the voltmeter may be calibrated directly in "Q" and if most of the circuit losses occur in the inductor, the "Q" measured in this way will be very close to the "Q" of the inductor.

The "Q" Meter includes an R.F. oscillator, a measuring circuit with main and vernier adjusted variable capacitors which tune the external inductor to be measured, a vacuum tube voltmeter (V.T.V.M.) designed for measuring the voltage across the tuning capacitor, and a method of introducing a known value of oscillator voltage in series in the measuring circuit.

This "Q" Meter can be used for determining the "Q" of audio and radio frequency inductors, fixed and

What Is It? – Answer To Last Month's Question, continued

variable capacitors, insulating materials (dielectrics), and small antennas. The oscillator covers a frequency range of 50 kilohertz to 75 Megahertz, but the range could be extended down to 1 to 50 kilohertz by the coupling of a suitable external oscillator. The internal oscillator had a claimed accuracy of +/- 1% or better for most ranges, except +/- 3% for the range of 50 to 75 Megahertz.

The Model 160-A was first introduced in 1939, and manufactured until 1959. It was superseded by the Model 260. As a point of reference, the sale price in 1942 was $550.00. [1] In 2023 dollars, that would be equivalent to $9,874.86 [2}

The original manufacturer was Boonton Radio Corp. of Boonton, New Jersey, which became Boonton Electronics Division of Hewlett-Packard. Boonton was one of the hubs of electronic manufacturing from the 1930s through the 1970s, with several competing companies in that town also specializing in the electronic measurement area. These included Ballantine Laboratories, Ferris Instruments and Measurements Corp.

Several other radio-electronics companies were active in Boonton, including Aircraft Radio Corp. (designer of the well known ARC-5 and similar aircraft transmitters and receivers) and Radio Frequency Laboratories (later RFL Industries), manufacturer of telephone and telegraph carrier equipment. An entire article could be devoted to the contributions of Boonton, New Jersey's manufacturing companies to the development of radio and electronics technology history.

My personal connection to Boonton Radio and their famous "Q" Meters goes back to a Fifth Grade classmate, Jim Lafferty. Jim knew I was interested in radio and electronics, and invited me to his home in Fair Lawn, where I saw the basement workshop/laboratory of his dad, Raymond. Ray's workshop looked much like the workshop of hams in those days, with a number of homebrew projects on shelves, drawers full of components, a drill press, drafting board, and a lot of test equipment, including the then-current Model 260 Boonton "Q" Meter. Outside, in the garage, was a custom made 3 foot diameter rotatable loop made of brown Bakelite, and wound with many turns of enameled wire, evidently for receiving signals at VLF.

A few days later, his dad called my home, and said he'd laid out some radio stuff for me on the grass strip in front of his house, and that I could take whatever I wanted. Thrilled with this offer, my dad drove me over there, and I filled dad's car with a General Radio frequency meter, a Navy surplus RADAR receiver, a box full of variable capacitors, coils, and other small stuff, an LF or VLF homebrew receiver, and one thing more — a copy of the 1948 *A.R.R.L. Radio Amateur's Handbook.* I was in my glory at this generous act of someone I hardly knew.

Later, I would discover that Ray Lafferty was the Marketing VP of Boonton Electronics, and author of numerous advanced papers in engineering journals.

Oh, and one more thing. Ray was a member of the Radio Club of America, and according to his biography, had once been a licensed ham himself. His call was W8VTJ, obtained in 1941 in Ogdensburg, New York. [3] Sadly, after the end of World War II, he never renewed his amateur license.

Ray Lafferty, ex-W8VTJ, was one of several "Elmers" who provided the inspiration for my long history in amateur radio, broadcasting and the electronics industry.

I cherish the memory of these generous men.

References:

[1] "Boonton Q Meter 160-A," *Radio Museum,* at: https://www.radiomuseum.org/r/boonton_boonton_q_meter_160_a.html

[2] U.S. Inflation Calculator, at: https://www.usinflationcalculator.com/

[3] *"1954 Year-Book of The Radio Club of America, Inc.,"* p.22, at: https://worldradiohistory.com/Archive-Radio-Club-of-America/Radio-Club-of-America-1954-YB.pdf

"Q" and "Q" Meter technical data from: "Test and Alignment Procedures for 160A and 260A Q Meters," *Boonton Division, Hewlett-Packard Co.,* n.d., at: http://hparchive.com/Boonton/Boonton-Manual-160A-260A.pdf

73,
Fred W2AAB

What Is It? – February, 2023

By: Fred Belghaus W2AAB

What could *this* be, I hear you moan as you scratch your head.

An early microphone?

An obscure telegraph instrument?

A time machine?

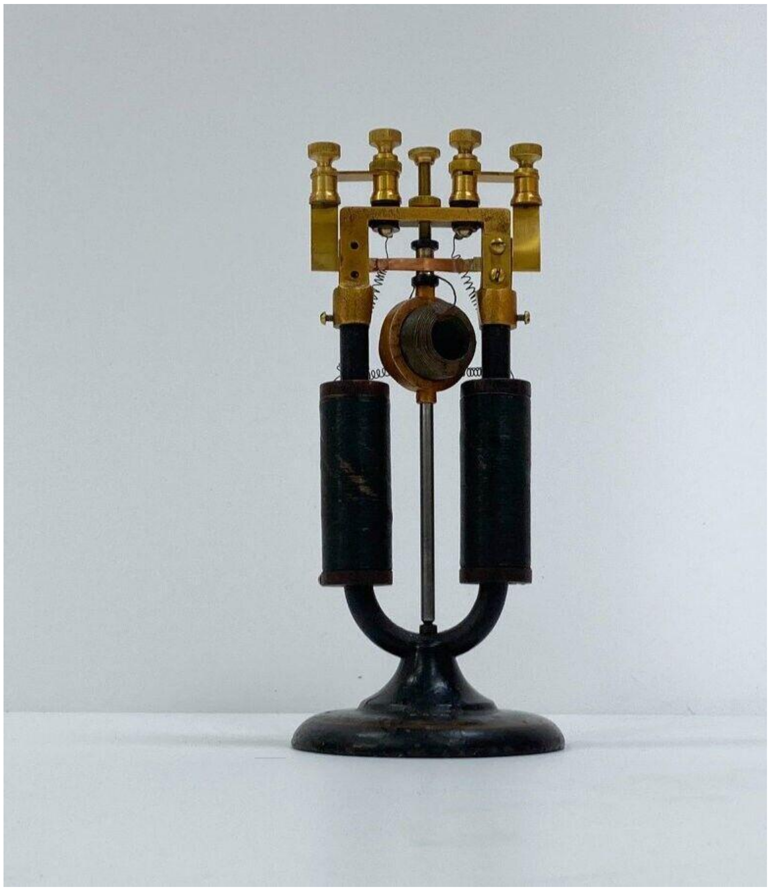
Well, it is an electrical device of some kind, but what kind, and about when do you think it was made?

Look carefully and tell me what it is.

Cheaters will be disqualified!

73,

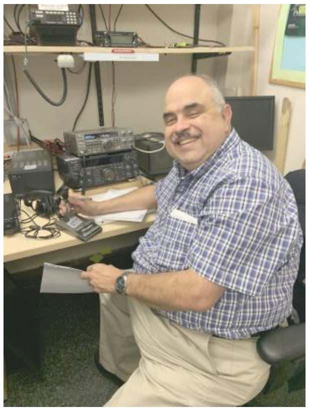
Fred W2AAB



DX Special Interest Group Update

During PopUp Tuesday on January 24th, Nomar NP4H worked Easter Island for W2NPT, using the club's Operating Position 5 on USB. This is a new DX entity for FLARC. Thanks, Nomar!

If YOU would like the thrill of working far-away countries, with great equipment and a super beam antenna, just stop by the club on any Tuesday between 18:00 and 20:30 and do it... there are folks there who can show you how to use the equipment and how to "catch the DX" so don't be bashful. ;)

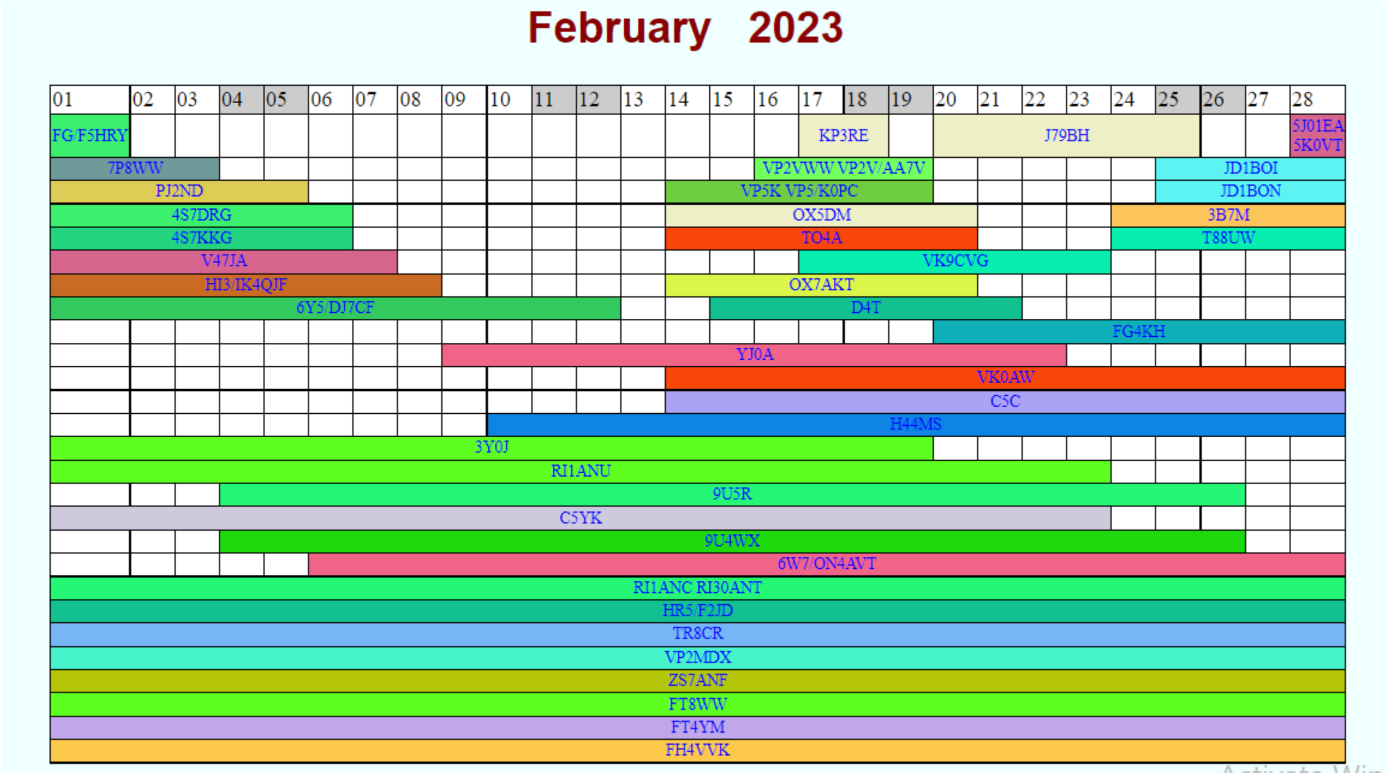


Guidelines for working DX from club stations with your own call sign —

With the upcoming scramble for contact with 3Y0J on Bouvet Island, the Board has considered the desire of club members to use the fine equipment and antennas we have at the club to get that rare ATNO (All Time New One) for themselves.

An interim policy has been developed for the Bouvet situation, which says that once W2NPT has made a "known good" contact with 3Y0J for club DXCC credit, then members may use their own call sign at the club, in the effort to make contact and earn their own DXCC credit. (If you do that, be sure to make note of ALL the necessary logging information so that when you get home you can submit it to LotW.)

The brave hams on that DXpedition are finding the situation much more rugged and hostile than they expected, and for now they are only able to use 100 Watts and wire antennas – not the high power amplifiers they had planned for. Watch groups.io DX SIG and the Slack DX channel for up-to-date news on the 3Y0J status.



World Radiosport Team Championship 2023

By: Fred Belghaus W2AAB

This year, the World Radiosport Team Championship (W.R.T.C.), an annual international competition, will take place in July, 2023. As a preview to that event, the W.R.T.C. committee in Italy sponsored a month long activity throughout the month of January featuring 52 Special Event stations in 32 DX countries operating on the 80 through 10 meter bands (excluding WARC). These stations operated on SSB and CW, and an award was made available to any worldwide station accumulating at least 100 points by working these Special Event stations.

Points were determined by mode and number of contacts. SSB contacts counted 5 points, and CW contacts, 10 points. The object was to make as many contacts as possible on as many bands as possible, using one or both modes.

During the month of January, the HF bands were hopping with activity generated by this event. The W.R.T.C. stations made 1.45 Million contacts with 109,357 "hunters" in 254 DX countries in that 31 day period.

Four FLARC members participated in this activity, and three earned the award. Here's a list of FLARC members and their scores:

W2AAB	**200 QSOs – 45 Special Calls – 5 Bands – 2 Modes**	**SCORE: 1,580 Points ***
K2DBK	**195 QSOs – 39 Special Calls – 5 Bands – 2 Modes**	**SCORE: 1,530 Points ***
W2MSA	**14 QSOs – 10 Special Calls – 4 Bands – 2 Modes**	**SCORE: 125 Points ***
KD2YEW	**17 QSOs – 11 Special Calls – 5 Bands – 1 Mode**	**SCORE: 85 Points**

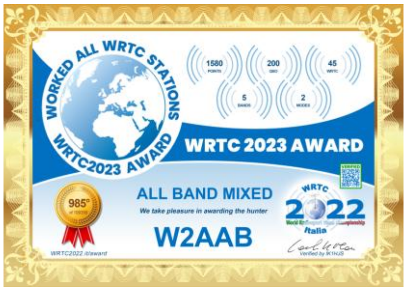
Award winners

Awards and eQSLs of all Special Event stations are available via the WRTC Award page
by entering the call of the "hunter" station.
NOTE: The awards use the date 2022! [Because it was postponed to 2023]

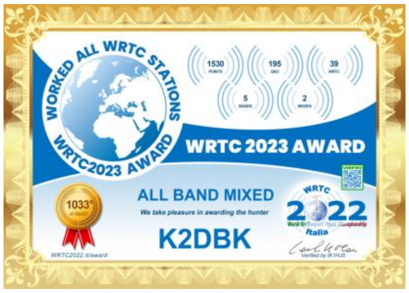
Congratulations to all the FLARC participants! Earned awards shown below.

73,

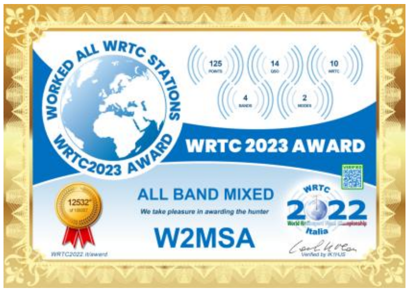
Fred W2AAB



WORKED ALL WRTC STATIONS
WRTC2023 AWARD
1580 POINTS
200 QSO
45 WRTC
5 BANDS
2 MODES
WRTC 2023 AWARD
985°
ALL BAND MIXED
We take pleasure in awarding the hunter
W2AAB
WRTC 2022 Italia
WRTC2022.it/award
Verified by IK1HJS



WORKED ALL WRTC STATIONS
WRTC2023 AWARD
1530 POINTS
195 QSO
39 WRTC
5 BANDS
2 MODES
WRTC 2023 AWARD
1033°
ALL BAND MIXED
We take pleasure in awarding the hunter
K2DBK
WRTC 2022 Italia
WRTC2022.it/award
Verified by IK1HJS



WORKED ALL WRTC STATIONS
WRTC2023 AWARD
125 POINTS
14 QSO
10 WRTC
4 BANDS
2 MODES
WRTC 2023 AWARD
12532°
ALL BAND MIXED
We take pleasure in awarding the hunter
W2MSA
WRTC 2022 Italia
WRTC2022.it/award
Verified by IK1HJS

SOTA • Summits on the Air

— **Mike Volpe KD2YEW**

We have been hearing a lot about POTA [Parks on the Air] for the past year or so. The *OTA alphabet is getting filled up quickly, it seems! ARRL has just started VOTA this year as well. Not to mention all the jokes going around – such as WOTA, Walmarts on the Air!

This month we have an article by FLARC member Mike Volpe KD2YEW about Summits on the Air.

Mike has had his general license ticket for just over a year now and has enjoyed learning about all the aspects of ham radio. He says: By far my favorite part is portable operations. In particular Summits on the Air https://www.sota.org.uk/

I am a very avid hiker and when I found out that I can combine my love of hiking and Ham radio I was hooked. For those of you who are not aware, Summits On The Air (SOTA) is an amateur radio operating award program launched in Great Britain in 2002 by John Linford. The aim of SOTA is to encourage licensed amateur radio operators to operate temporarily from mountainous locations using any method of travel including hiking, mountain climbing, and cycling while operating their amateur radio station from the summits of hills and mountains. Similar to Parks on the air (POTA), you get points for both activating as well as hunting and you earn awards.

I have done several activations this year and I would like to share my process.

First I start out on the website SOTLAS. [https://sotl.as/map/] This is where the map of all of the summits are. You click on the one you are interested in and it brings you to the location on the map and has all of the information, coordinates etc.. There are also links to other peoples' trip reports, with a lot of good information. Then there is a tab that says OPEN and you can open the map in many different applications – like google or bing maps.

I use a map software called GAIA which is free. Once I open GAIA I create a route and make my own map, which I can use to navigate when I get there. Once on the summit, I spot myself using a phone app called sotawatch which lets everyone know where I'm at and at what frequency. I also spot on the northeast SOTA club Facebook page and FLARC's portable op Slack channel.

After the activation, I upload my log on the site sotadata.org. This is where you see all of your information such as how many points you have and all of your activator and chaser logs.

Here is a list of the equipment I use:

- Icom 705
- EFHW antenna (ARRL kit and KM4ACK)
- Bioenno 36 watt hour battery
- Nano VNA antenna analyzer
- RG 142 coax cable

Well, I hope this gives you a good idea of what SOTA is all about. I encourage you to strap on your gear and get up into the mountains; and if you can't, then hunt from your home shack.

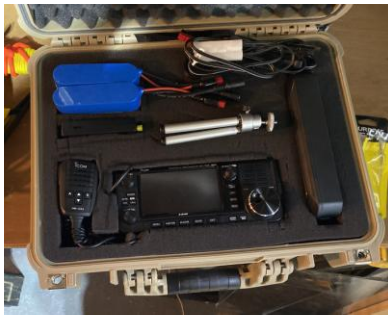
Thanks and 73

Mike Volpe KD2YEW

IMAGES on the next page.

S O T A • Summits on the Air, continued.

On site & ready to log contacts



The “Go Box”

Fun, even in the snow…

All the stuff !!

Antenna spooled for storage

Resource links —

- https://www.arrl.org/radio-operating-from-summits
- https://www.sota.org.uk/
- https://www.sota.org.uk/About
- https://sotastore.blob.core.windows.net/docs/SOTA-leaflet-2016.pdf
- https://www.alltrails.com/lists/summits-on-the-air
- https://w5nor.org/sota/

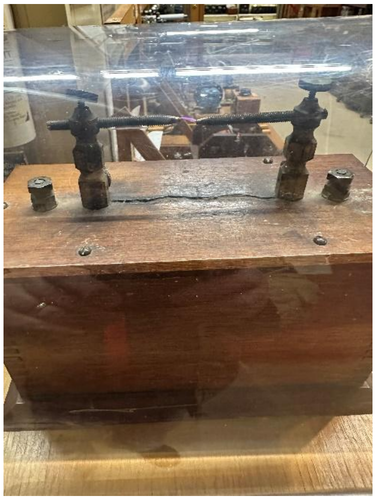
The Vintage Radio and Communications Museum of Connecticut

Windsor, CT

— **By Lee Smith, KD2DRS**

So, you'd like to see for once a real working spark gap transmitter like those operated on the *RMS Titanic?*

You're in luck! Only 12 miles from the ARRL HQ, the Vintage Radio and Communications Museum is within your reach and has one you can work!



I recently visited and was guided through the hour- long tour by volunteer **W1FTE,** Charles Colton, aka "Skip" who, by the way, operates W1AW every Tuesday!

Along the path there are Edison gramophones, Wurlitzer Juke boxes, even pulse modulation relays – so you can see how those rotary dial phones really worked.

In their radio studio they demonstrate a Theremin, a musical instrument played with no physical contact — IT produces eerie sounds like a Moog.

Lastly, there are hundreds of AM and shortwave radios, tube and transistor, from bygone eras along with some of the very first television sets — the CRT is so small it's only enough screen for 1 viewer.

This is a great place to visit as a side trip when on the way to or from W1AW.

https://www.vrcmct.org/

Contest Corner

– Van W2DLT

Contest Corner – February 2023 by Van W2DLT

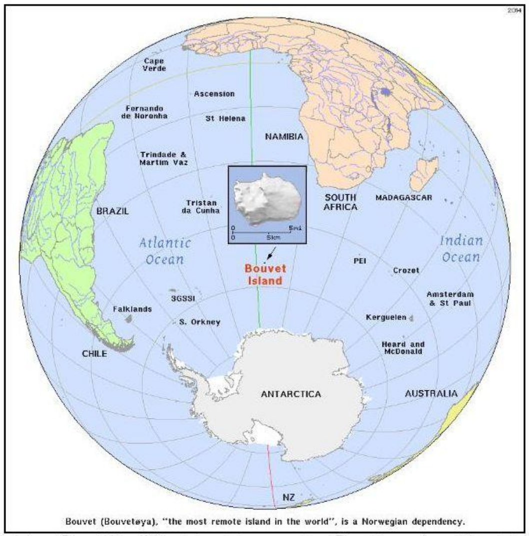
You've all been hearing and reading about the DXpedition to Bouvet Island. Although it's not a "Contest" as such, it will surely use ALL of your Contesting skills to work them. As of today (Sunday February 5th) it's still not a "done deal."

Let's start with a bit of the early history of the island itself and its extremely remote location:

Bouvet is a dependency of Norway and is an uninhabited protected nature reserve sporting only penguins, birds and a Norwegian weather station (visited every six months or so for maintenance (fly in-fly out). No Holiday Inns here to warm up and catch a good night's sleep.

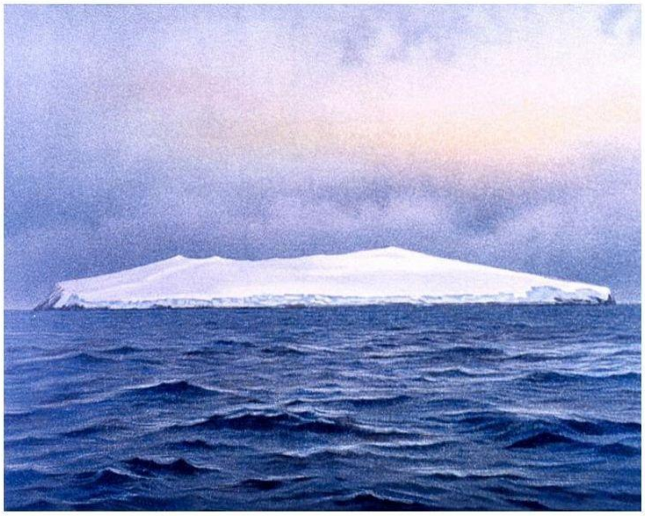
The island is 1100 miles north of the Princess Astrid Coast of Queen Maud Land, Antarctica; 1,200 miles east of the South Sandwich Islands; 1,146 miles south of Gough Island and 1,600 miles south-southwest of the coast of South Africa. It's 19 square miles, 93% of which is glacial ice. It sports an inactive volcano too – how fun. Too boot, it has only ONE suitable place to land by sea and no place to land anything but a ship-borne helicopter – no JFK here.

It was first spotted in 1739 by a Frenchman named Jean-Baptiste Charles Bouvet de Lozier during a French exploration mission in the South Atlantic. They didn't even make land-fall at that time. It was not spotted again until 1808 when a British whaler James Lindsay encountered it and named it (of all things) Lindsey Island. Later an American sailor named Benjamin Morrell claimed to be the first to actually land on the island. In 1825 the island was officially named Liverpool Island and claimed for the by British by George Norris.



Bouvet (Bouvetøya), "the most remote island in the world", is a Norwegian dependency.

BOUVET ISLAND



In 1927 the first Norwegian expedition landed on the island and claimed it for Norway. Then in 1930, following a dispute with England, it was declared a Norwegian dependency and in 1971 was declared a nature preserve, which is still today. That is why any group must go through a rigorous, lengthy process to be granted to visit the Island.

More recently, in 1955 a South African frigate visited the island and landed on a rock-strewn ice-free area (where the 3Y0J is landing I believe). In 1964 Bouvet was again visited by a British naval ship. Since then the island has been visited frequently by Norwegian Antarctic expeditions and in 1977 they set up an automated weather station. There is a Norwegian Polar Institute 390 sq foot research station made out of a shipping container.

So that's what everyone has been talking about and waiting for activity from there to begin, when the weather calms down. It looks like it will begin this coming week and won't be fully activated until at least the 9th or 10th of February.

Contest Corner, continued.

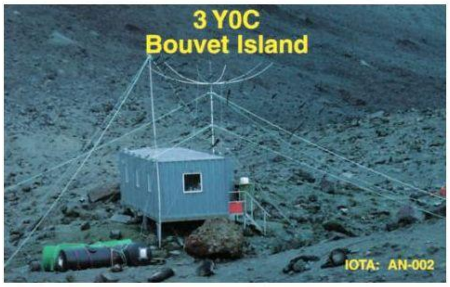
Other attempts, successful and unsuccessful to operate from Bouvet include:

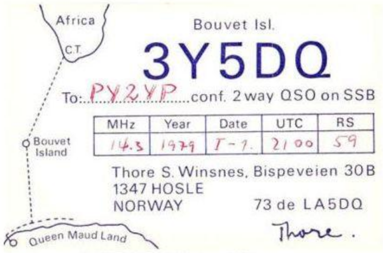
Dec 14, 2018 21:05 GMT 3Y0I – officially postponed

The Infamous LH4C - W4BPD / 3Y0 "DXpedition" - 1962

3Y5X - 1989/1990 - Club Bouvet -
So far it's been the one and only *"real"* DXpedition to Bouvet Island...

3Y5DQ and 3Y1VC - 1978 / 1979 Thor Winsnes and John Snuggerud (non-DXpedition)




Africa
C.T.
Bouvet Island
Queen Maud Land

Bouvet Isl.

3Y5DQ

To: PY2YP conf. 2 way QSO on SSB

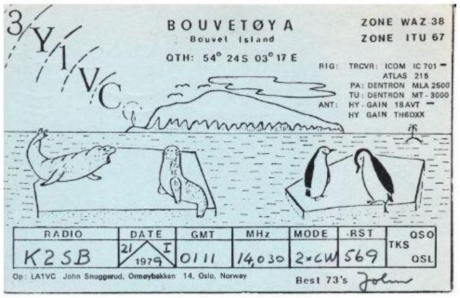
MHz	Year	Date	UTC	RS
14.3	1979	I - 1.	2100	59

Thore S. Winsnes, Bispeveien 30B
1347 HOSLE
NORWAY

73 de LA5DQ

Thore.

3Y5DQ, Thore Winsnes



BOUVETØYA
Bouvet Island
QTH: 54° 24S 03° 17 E

ZONE WAZ 38
ZONE ITU 67

RIG: TRCVR: ICOM IC 701 –
ATLAS 215
PA: DENTRON MLA 2500
TU: DENTRON MT - 3000
ANT: HY - GAIN 18AVT –
HY GAIN TH6DXX

RADIO	DATE	GMT	MHz	MODE	RST	QSO
K2SB	21 I 1979	0111	14,030	2×CW	569	TKS QSL

Op: LA1VC John Snuggerud, Ormøybakken 14, Oslo, Norway

Best 73's John

Which one do you have Fred?? hihi

Unfortunately, or fortunately, your reporter will be enjoying the fun and sun at Hamcation in Orlando… I postponed our trip from the 1st of February until the 6th of February, in hopes they'd be able to set up and operate before I left, but no such luck.

Meanwhile, here is why everyone is so anticipating their activation. Once it is SAFE to do so:

Hams have always chased DX (either in a big or a small way, it's always the "thrill of the chase") and they've always kept a record of what's the hottest catch out there… Here's a current list of the top dozen "big fish."
How many have you snagged?

Rank	Prefix	Entity Name	Whitelisted?
1.	P5	DPRK (NORTH KOREA)	✓
2.	3Y/B	BOUVET ISLAND	✓
3.	FT5/W	CROZET ISLAND	✓
4.	BS7H	SCARBOROUGH REEF	✓
5.	CE0X	SAN FELIX ISLANDS	✓
6.	BV9P	PRATAS ISLAND	✓
7.	KH7K	KURE ISLAND	✓
8.	KH3	JOHNSTON ISLAND	✓
9.	3Y/P	PETER 1 ISLAND	✓
10.	FT/G	GLORIOSO ISLAND	✓
11.	FT5/X	KERGUELEN ISLAND	✓
12.	YV0	AVES ISLAND	

3YØJ Bouvet Island as seen from the boat on 31 January 2023

Contest Corner, continued.

In other news – as they say:

--- ARRL School Roundup 1300Z Feb 13th to 2359Z Feb 17th

---**ARRL International DX CW 0000Z Feb 18th to 2400Z Feb 19th**

---S. Carolina QSO Party 1500Z Feb 25th to 0200Z Feb 26th

---N. Caroling QSO Party 1500Z Feb 26th to 0100Z Feb 27th

---**ARRL International DX SSB 0000z Mar 4th to 2400Z Mar 5th**

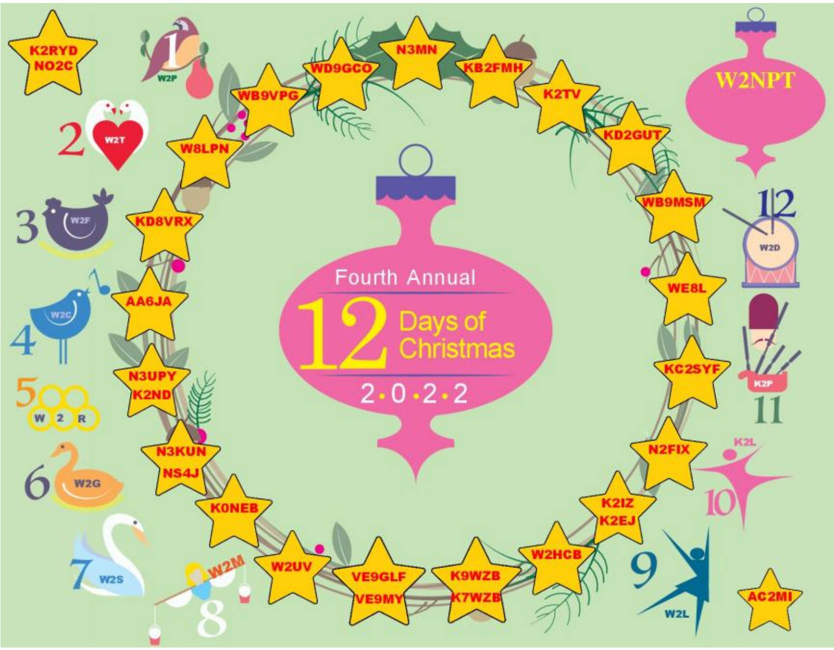
---OK QSO Party 1500Z Mar 11th to 0200Z Mar 12th

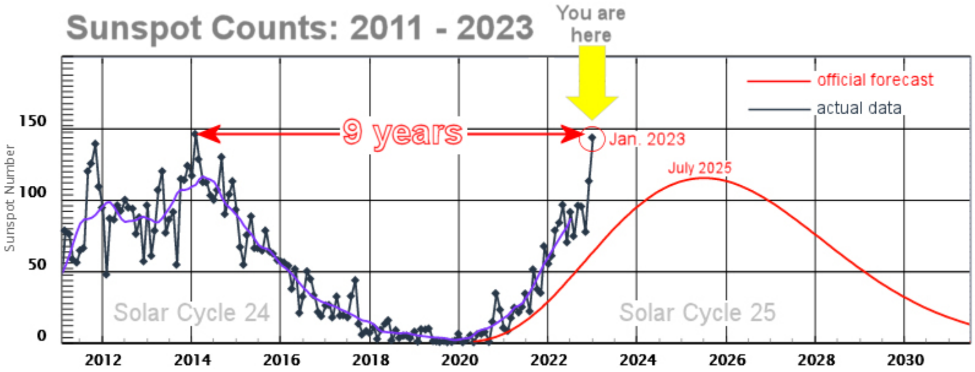
---Wi QSO Party 1800Z Mar 12th to 0100Z Mar 13th

Ham radio has contests that are a bit different from the usual frenzy of making the most contacts in a given time, or chasing a fox at a DX location.

Some “contests” involve working some or all of Special Event Stations which are commemorating some event.

Here is an award certificate earned by W2NPT for contacting the twelve SES, each representing one of the “Twelve Days of Christmas.”





Report from Portable Ops SIG, cont'd

FLARC PortableOps SIG

PortableOps@FairLawnARC.groups.io

This is a Special Interest Group (SIG) for members interested in portable ham radio operation such as POTA, SOTA, IOTA, LOTA, etc.
The purpose of this SIG is to get outdoors and practice our operating skills from different places. We can share outing experiences, tips and work on our operating skills.

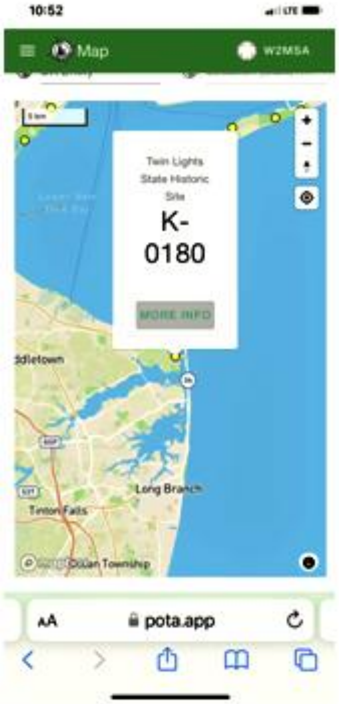
I finally was able to activate the Twin Lights Historic Site (K-0180) which counts as a twofer with the NJ Coastal State Trail (K-6544).

I stumbled upon this site when driving on Route 36 and realized it wasn't on the Parks On The Air map, so I reached out to the NJ map coordinator at the time, Claude Ray AC4SH, and he was able to help me get this park on the map.

Once this park appeared on the POTA map, it was quickly activated four times within that month by four hams in the area. This activation was special for me — I made 50 contacts and the site was very nice, with a view of the ocean and many historical artifacts.

Our FLARC Portable Ops members are park leaders when it comes to activating some of our local parks. Way to go guys, you guys are awesome for keeping the airwaves active and having a blast in the process.

– W2MSA



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Report from Portable Ops SIG, cont'd

What a year it was, and great years ahead

So 2022 ended on a bit of a bang. My activating had slowed down a bit, though I had set some personal POTA goals and met them by the middle of December, with 300+ parks activated and 1500+ parks hunted since I started the wonderful POTA journey.

Good thing, since at the end of the month I suffered a major infection in my leg and pelvis which landed me in hospital for the month of January; then in rehab for several more weeks, possibly thru the end of February. The diagnosis and care I received were excellent, and the IV antibiotics along with physical and occupational therapy has gotten me back on my feet and I'm getting better every day.

One of the downsides was that I was QRT for the past 6 weeks, as of the time of this message. I'm looking forward to getting back on my feet (literally, though I have been doing a lot of walking here and on trips "off campus" for doctor appointments and family visits) and back on the air, and see all my FLARC friends again..

At the end of the year I was proud to be elected as a FLARC Trustee, and though I regret not being able to join in meetings, I was able to institute some positive changes. These include helping change the policy to allow personal call signs to be used at the excellent W2NPT station, with certain conditions such as not during contests, and only after a W2NPT QSO has been logged in high-demand DXCC expeditions — such as Bouvet Island.

I was also proud to arrange several donations of personal accessories and a full station from an SK friend/relative, with the goal of having that used to establish stations at a school or Scout troop in memory of the late donor – who was committed to education and community service.

And looking ahead to 2023 and beyond

I have lots of goals and projects ahead, including:

- As POTA mapping representative for NJ I am committed to continue to be a resource for activators, and keep the NJ POTA Parks site updated with tools to provide links to information to be helpful, without losing the fun and challenge of researching best practices for activating, and encouraging a community of shared experiences.
- Activate all 100 NJ parks this year. I'm at 57+ so far, and look forward to some major roves and beach (shore) visits.
- Continue to each Kilo, N1CC (all band), and Six Pack (6 meter) awards
- Facilitate get togethers, for FLARC and other interested ops, at various parks in and around NJ. Good food and good friends!
- Set goals for 2023 activity — lots of new-to-me parks to activate, and lots of favorites to re-visit. My radius of travel needs to expand, since I've already activated so many parks within about 100 miles of home.
- Facilitate awards for working all parks in various counties throughout our area.
- Continue and expand operation in Special Event Stations, especially those facilitated by James Gallo KB2FMH. Thanks to James for all he has done and is doing for FLARC, POTA, DX, Scouting, and more.
- Improve my CW skills and get back into it. There are lots of great mentors in the group including Fred W2AAB, Steve WI2W, Noel W2MSA, Nomar NP4H, and many others.
- Streamline and improve my station(s), especially the antenna systems (such an exciting area for innovation and experimentation), solar power (thanks Brian KD2KLN), and more.
- Increase use and expertise with remote operations including WebSDR.org and especially RemoteHams.com (their RCForb client and server software is awesome, and they feature many stations that are open, after approval, and no charge).

I thank the entire FLARC and POTA families for their ongoing support and friendship, and can't wait to get back out there and see everyone again … soon.

Best wishes and 73 all.

Steve Rosman KA2YRA

February 7, 2023

Theoretics Demystified

This month the subject is resonance-- physical and electronic.

Everything has a natural resonance; the object if free to vibrate, will vibrate at its natural frequency which depends upon the size and shape of the object. If said object is subject to a frequency of vibration which is at or close to its natural resonant frequency, it will cause the item to vibrate at that induced frequency and will ultimately cause it to vibrate to the point of self-destruction.

The Tacoma Narrows Bridge is a good example. When it was built, much less was known about resonance. What happened was that when the wind was blowing at the right velocity and direction, the bridge began to vibrate at a slow enough rate to cause the roadway to move up and down a frequency that eventually tore the roadway apart – leading to the destruction of the bridge. This generated a standing wave. (Take a rope and tie the other – far -- end to a fixed point and then take your end and shake it up and down and see the 'wave' it generates as it moves back and forth.) This standing wave was at just the right frequency, albeit slow, to tear the bridge apart!

This mechanical standing wave, imposed on the roadway structure and generated by the wind, happened several times before the ultimate destruction — giving the bridge the name of 'Galloping Gertie.'

This also brings to mind the pictures of a wine glass being shattered by an opera singer belting out a loud note at the right frequency.

Again, all physical items have a natural resonant frequency which can, if sustained long and loud enough, blow them apart. Resonant frequency plays a part in the electronics world and is particularly well known in the world of radio, particularly amateur radio.

In electronics, particularly in dealing with radio, resonance has to do with the ability of circuits to enhance or defeat an incoming signal or to shape it during processing. When tuning in a radio station you want only that one but not the others. How does this happen? There are a set of electronic devices that make this happen.

In the early days there was a variable condenser (capacitor) and a coil of some type that were designed for the radio band that was desired to be received.

What happened was that when you tuned the early TRF (Tuned Radio Frequency) by adjusting the variable

Continued on next page.

Radio Direction Finding SIG Report

This group will discuss Transmitter Hunting - also known as T-Hunting, Fox Hunting, Radio Orienteering or Radio Direction Finding.

This group will discuss Transmitter Hunting – also known as T-Hunting, Fox Hunting, Radio Orienteering, and Radio Direction Finding.

We are starting to plan the next transmitter hunt for the early Spring. Both low power (15mW) for training at the park, and then a higher power (1W) transmitter will be hunted via car. A great event to get the youth interested.

Kits, builds, techniques, and other transmitter hunting information will be on the SIG.

For those interested in joining the Radio Direction Finding SIG subscribe at:

Radio-Direction-Finding+subscribe@FairLawnARC.groups.io

https://www.smirk.org/radio-orienteering/

Order a FLARC Shirt!

Nomar NP4H is taking orders for a spiffy bright red (really sort-of maroon) polo shirt for Field Day. This is a pilot for a possible new vendor and will match our current shirts which are available by mail. This order is from a reputable local vendor. The price is $25.00 with your call sign sewn in.

Contact Nomar directly at np4h@aol.com.

Theoretics Demystified, continued

condenser, the resonant frequency of the circuit passed or accepted the desired station and rejected the others. Early radio sets often had three sets of the tuned circuits to adjust in order to hear that distant station.

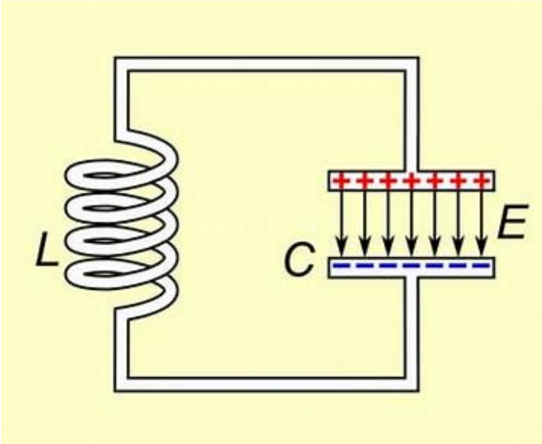
What was happening was that by adjusting the circuit, you changed to resonant frequency of the circuit and thereby let to desired signal pass while attenuating or rejecting the unwanted signals. The resonant frequency is where the tuned circuit matches the desired signal – thereby giving the maximum response to the incoming signal [and in transmitters, the outgoing signal.]

There are two types of reactances in an electronic circuit. The effect of each is opposite of the other and equal. There is inductive reactance and capacitive reactance. Reactance is simply the electronic resistance to a specific frequency.

Inductive reactance of an inductor, which is a coil of wire (rather large at lower frequencies and much smaller with fewer turns at high frequencies), increases as the frequency applied to that coil increases. The mathematical letters are X of L, or X_L with X being the reactance.

Capacitive reactance of a capacitor (which is a set of plates [in whatever shape] separated by an insulator), or AC resistance of a capacitor, is very high at low frequencies but quickly decreases at higher frequencies and approaches zero resistance [reactance] at frequencies near infinity. The mathematical letters are X of C, or X_C

Where capacitive reactance equals or cancels out inductive reactance there is the resonant frequency. There are no imaginary impedances existing. For resonance to happen there must be an inductor and a capacitor.



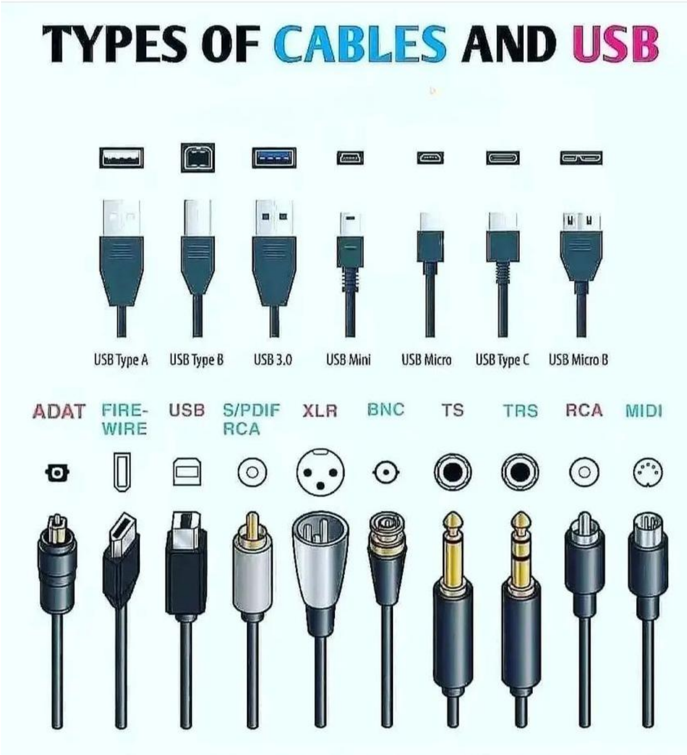
Capacitors take many shapes largely depending upon the frequency that they operate, the larger the value the larger the size, and the higher the frequency the smaller the size, therefore many sizes and types exist. The same holds true for inductors. They range from almost man-sized monsters to almost microscopic, as in surface mounted devices!

Early radios used a simple sandwich condenser (capacitor) that was hinged on one side and folded together to increase the capacity and thereby aid in tuning the radio. There was also a set of flat 'spider web' coils that were inductors used to set the amount of coupling between the two to control the amount of regeneration in the radio. Regeneration is a technique used whereby the signal output is reintroduced at the input and controlled by coil spacing or resistance at the input almost to the point of oscillation thereby reamplifying the radio signal many times to increase sensitivity.

You would adjust the regeneration control so there would be a squeal (oscillation) and then back it off till it just stopped and that would give you a boost in signal!

There is MUCH more to resonance, but the purpose of this article is to put technical information into easily understandable terms and explanations.

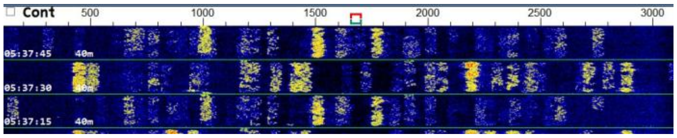
Fred Wawra, W2ABE, 73's.



FT8 & Digital Data Modes Special Interest Group Update

FT8@FairLawnARC.groups.io

A Special Interest Group SIG for those interested in FT8 and FT4 digital communications and software.

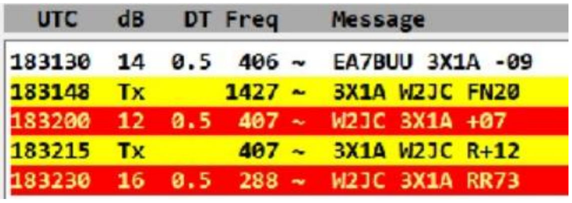


Catching the Fox ...

Recently, and at present, there have been several rare DX stations using FT8 in the “Fox/Hound” mode.

The Fox/Hound mode was designed specifically for high-volume expedition or Special Event Stations and has some ‘rules’ that make it work smoothly.

The Fox (DX) will always transmit below the 1000Hz offset from the dial frequency, and Hounds must pick a place above the 1000Hz offset. This keeps the first 1000Hz of offset as a “QRM-free zone.” When the Fox answers a calling Hound, the software will automagically switch the Hound’s offset to match the ‘channel’ used by the Fox to answer. This is a genius scheme, because during the time cycle when Hounds are transmitting, there should be NO other station on the Fox’s channel except the one replying to the Fox! **



```
UTC     dB  DT Freq   Message
183130  14  0.5  406 ~  EA7BUU 3X1A -09
183148  Tx      1427 ~  3X1A W2JC FN20
183200  12  0.5  407 ~  W2JC 3X1A +07
183215  Tx       407 ~  3X1A W2JC R+12
183230  16  0.5  288 ~  W2JC 3X1A RR73
```

Here is an example of a ‘perfect’ F/H exchange.

- **Fox [3X1A] replied to EA7BUU with a signal report on the ‘even’ time slot [183130];**
- **W2JC called the Fox on the next ‘odd’ time cycle [183148]** (Note that W2JC started 3 seconds late, but the call still worked!);
- **the Fox replied to W2JC with signal report of +07;**
- **W2JC’s Freq now changed to 407, to match the Fox, and sends acknowledgement R followed by sig report of +12;**
- **Fox then responds with RR73, which triggers the software to log the QSO in the Fox’s log.** (Note that the Fox RR73 came back on a different ‘channel’ [288] than the original response [407].)

If the Fox does not copy the Hound’s reply for a

Continued on next page.

DIY, Makers, Raspberry Pi, 3d Printing and Arduino Special Interest Group Update

Rpi-Arduino@FairLawnARC.groups.io

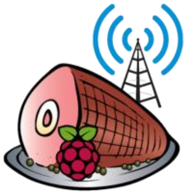
A Special Interest Group SIG for those wanting to learn about and use Raspberry Pi, and Arduino, modules - with special interest, of course, for ham radio projects...and for those who “MAKE” ham stuff.

FOR THOSE WHO “MAKE” HAM STUFF!

Not just Raspberry Pi and Arduino

FLARC has a SIG for those who experiment and build Ham Radio equipment or would like to learn. Projects have been posted.

For those interested in joining, go to the club website at http://FairLawnARC.org and use the "Join Special Interest Group(s)" link on left.



2022 Member Profiles

Here are this year’s member profiles. An index of previous years can be found elsewhere in this issue. All profiles can be found in the newsletter archives on the FLARC website.

Month	Name	Callsign
January 2022	James	KB2FMH
February	Brian	N2BTD
March	Luisa	KD2YWX
April	Ria	N2RJ
May	Telly	WW2SPY
June	Ken	W2SCT
July	Avanti	KC3DZG
August	Norm	KB2JRP
September	Ahmed	W2/HC2AP
October	Mitch	KD2IIU
November	Mike	KD2YEW
December	Robert	KD2SOG

FT8 & Digital Data Modes
Special Interest Group Update, cont'd

couple of time cycles, the software will move the Hound up 600Hz to a new channel below the 1000Hz offset – thus allowing new Hounds to reply on the Fox's channel yet still giving the first Hound more cycles for propagation to get better (maybe!) so his reply can be heard by the Fox.

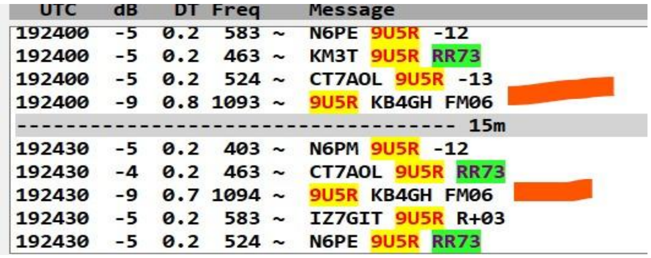
This is the specific protocol for Foxes using the original WSJT-X software; there are several 'knock offs' programs that do not work this way however, and they seem to be being used more often.

When the Fox is using the alternate software, the Hound can call and respond the same way the "normal" FT8 mode works – BUT Hounds should still stay above the 1000Hz offset.

There is another matter which Hounds (hunters) must stay aware of… it really is common sense, but it is amazing how many stations are seen ignoring it.

FT8 procedure is like a ying/yang cycle – one set of stations transmits starting on 'even time' cycles [00 and 30 seconds of each minute]; the other set of stations transmits on the 'odd time' cycles [15 and 45 seconds of each minute]. The Fox SHOULD always transmit on the 'even cycle.' Thus, if you are calling the Fox you should only send on the 'odd time' cycles. Think about it … if you are both sending on the same cycle, how will either of you hear the other one?

Yet there are always some stations calling the Fox at the same time the Fox is transmitting. ☹



```
  UTC    dB   DT Freq     Message
192400   -5  0.2   583 ~  N6PE 9U5R -12
192400   -5  0.2   463 ~  KM3T 9U5R RR73
192400   -5  0.2   524 ~  CT7AOL 9U5R -13
192400   -9  0.8 1093 ~   9U5R KB4GH FM06
------------------------------------ 15m
192430   -5  0.2   403 ~  N6PM 9U5R -12
192430   -4  0.2   463 ~  CT7AOL 9U5R RR73
192430   -9  0.7 1094 ~   9U5R KB4GH FM06
192430   -5  0.2   583 ~  IZ7GIT 9U5R R+03
192430   -5  0.2   524 ~  N6PE 9U5R RR73
```

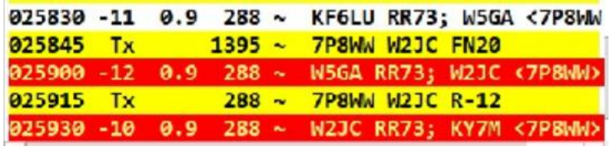
Aside from guaranteeing such stations will NEVER work the DX, they can also be causing problems for the other Hounds. If such a station, calling at the same time the Fox is sending, has a strong signal at a Hound's QTH it may cause de-sensing of the Fox's signal, making it hard for everyone else to decode the Fox if it has a weak signal.

This situation also suggests that such rouge operators (on the wrong time cycle) are violating another common sense rule: *do not keep calling any station if you cannot decode them!* Think about it: if the rogue operator COULD decode the Fox, why would he transmit at the same time as the Fox? But if the Fox did respond to the rogue operator, how would he even know the Fox came back to him? Yes, there ARE lids who see DX spotted on a frequency and they just call and call forever, without ever seeing the DX station.

FT8 & Digital Data Modes
Special Interest Group Update, cont'd

There are a few more features of the Fox which Hounds should be aware of… the Fox can transmit more than one channel at a time, sometimes up to FIVE at once. This is nice if the Fox has a very strong signal; but each added channel shares the output power of the Fox's transmitter – so you will see the Fox signal level go down as more channels are used. The Fox may respond to a calling Hound on any one of the channels; it does not matter to the Hound, as the software will detect the Fox response and proceed with the proper response.

And there are also times when the Fox may respond to TWO stations at the same time on one or more of the channels! This is another clever design in the software. As noted above, Fox/Hound is intended for DXpeditions with high volume of QSOs – so anything that increases the "through put" means more hams get to make contact with the rare DX station. Here is an example of how that looks —



```
025830 -11  0.9  288 ~  KF6LU RR73; W5GA <7P8WW
025845  Tx      1395 ~  7P8WW W2JC FN20
025900 -12  0.9  288 ~  W5GA RR73; W2JC <7P8WW>
025915  Tx       288 ~  7P8WW W2JC R-12
025930 -10  0.9  288 ~  W2JC RR73; KY7M <7P8WW>
```

- **On the first, white, line the Fox completes QSO with KF6LU by sending RR73 & at same time responds to W5GA**
- **On the next line, yellow, W2JC calls the Fox**
- **On the third line, red, Fox completes QSO with W5GA by sending RR73 & at the same time responds to W2JC**
- **On the fourth line, yellow, W2JC acknowledges Fox's response with R followed by -12 sig rpt** (Note that W2JC freq changed to 288 to match Fox's channel)
- **On the fifth line, Fox completes QSO with W2JC by sending RR73, and then responds to KY7M.**

** To work, this requires the Hounds to be using WSJT-X software in the Fox/Hound mode – which, with the latest update of that software, is very easy as there is now a button at the left of the "DX Call" label which is shown as [H]. This button toggles between Hound mode and regular mode.

Join the FLARC FT-8 Special Interest Group –

Just send an email to:
FT8+subscribe@FairLawnARC.groups.io

For FLARC membership info and renewal/application form please visit:

membership.FairLawnARC.org

FLARC Dues, new and renewal, (and even donations!) can now be made on-line ...

[Please note that this is a temporary improvement while Dave KD2JIP works on a real, full-fledged web page for filling out the membership/renewal form and submitting that and payment on-line.]

Payments can be made using either PayPal or Zelle.
Here's how –

Using PayPal —

Log into your PayPal account at

https://www.paypal.com

At top right, select "My PayPal"

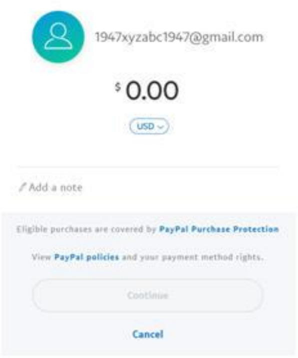
Under Quick links, select "Send Money"

In the window showing
Name, email or mobile number
enter this email address:

1947xyzabc1947@gmail.com

Click on [Next]

Enter $ amount you are sending, & in "add a note" area type in your CALL SIGN and which year (2020 or 2021) the dues are for, & any other explanation.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Click on [Continue]

Click on the [Change] button

Click on "Sending to a friend" link

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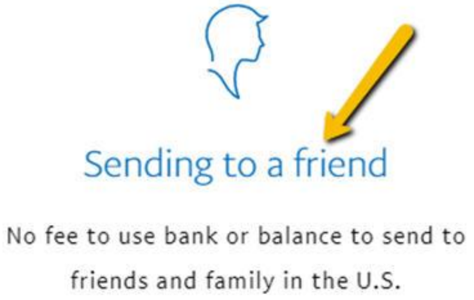

Sending to a friend

No fee to use bank or balance to send to friends and family in the U.S.

You will see a summary of your transaction; if no changes are required, click on

[Send Payment Now]

to complete your transaction.

$$$$$$$$$$$$$$$$$$$$$$$$

Using Zelle —

If you are using Zelle through your bank account, just send your dues to the following number: 201-240-9317

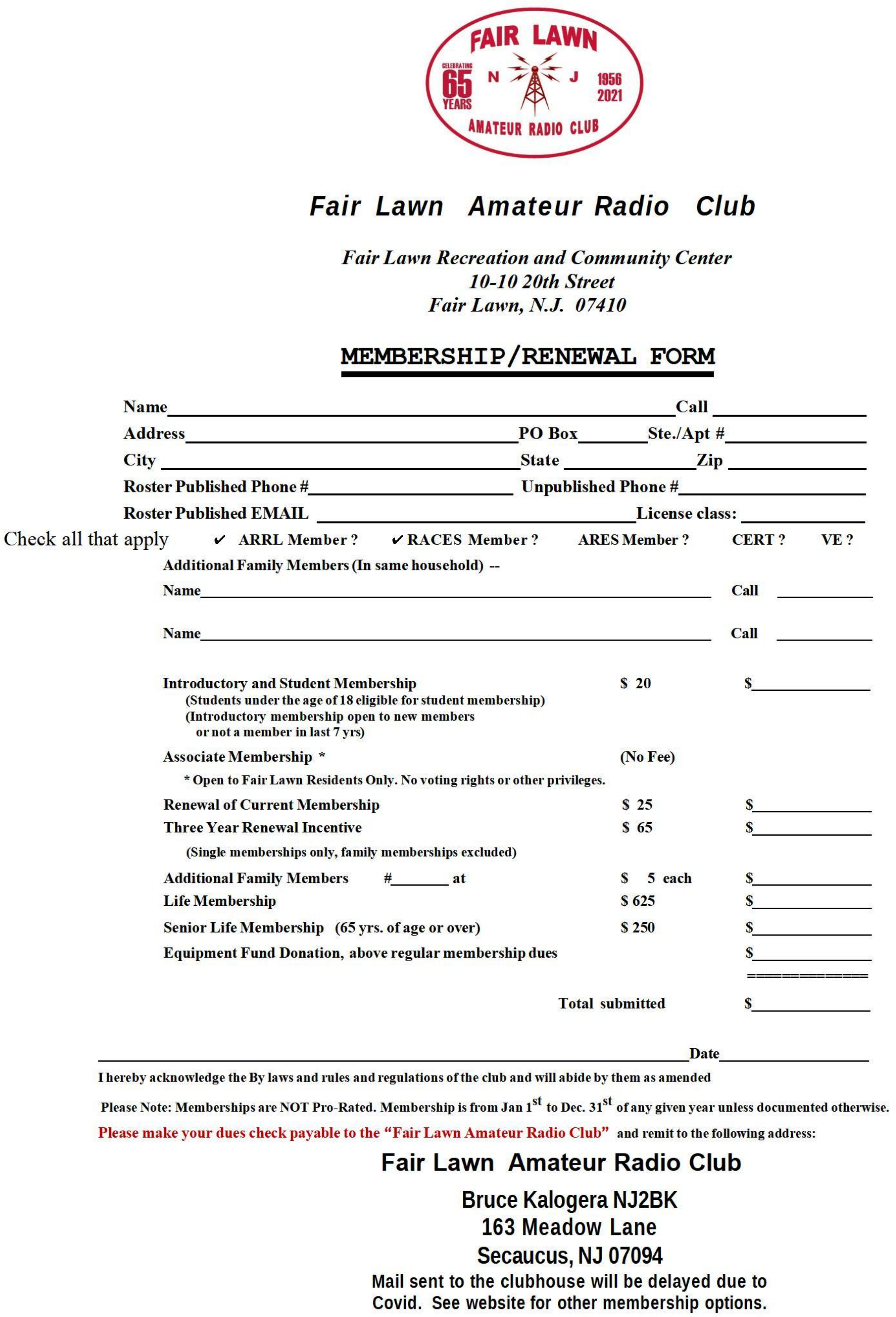
Don't forget to add in the note/message section your callsign and that it is for your 2020 and/or 2021 dues.

OR you can still use a good ol' Check or Money Order payable to FLARC - always put your Call Sign and "dues for 2020" (or 2021) on the check. MAIL TO:

Bruce Kalogera, NJ2BS
163 Meadow Lane
Secaucus, NJ 07094

For a PDF form that can be filled in on-line, then printed and mailed with check, CLICK HERE

Or you can print this page, fill it in and mail to the address shown at the bottom.



FAIR LAWN
CELEBRATING 65 YEARS
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1956 2021
AMATEUR RADIO CLUB

Fair Lawn Amateur Radio Club

Fair Lawn Recreation and Community Center
10-10 20th Street
Fair Lawn, N.J. 07410

MEMBERSHIP/RENEWAL FORM

Name________________________________ **Call** ____________
Address____________________ **PO Box**______ **Ste./Apt #**__________
City ____________________ **State** ________ **Zip** ________
Roster Published Phone #____________ **Unpublished Phone #**____________
Roster Published EMAIL __________________ **License class:** ________
Check all that apply ✔ **ARRL Member ?** ✔ **RACES Member ?** **ARES Member ?** **CERT ?** **VE ?**

Additional Family Members (In same household) --

Name________________________________ **Call** __________

Name________________________________ **Call** __________

Introductory and Student Membership (Students under the age of 18 eligible for student membership) (Introductory membership open to new members or not a member in last 7 yrs)	$ 20	$________
Associate Membership * * Open to Fair Lawn Residents Only. No voting rights or other privileges.	(No Fee)	
Renewal of Current Membership	$ 25	$________
Three Year Renewal Incentive (Single memberships only, family memberships excluded)	$ 65	$________
Additional Family Members #_____ at	$ 5 each	$________
Life Membership	$ 625	$________
Senior Life Membership (65 yrs. of age or over)	$ 250	$________
Equipment Fund Donation, above regular membership dues		$________
		============
	Total submitted	$________

____________________________________ **Date**__________

I hereby acknowledge the By laws and rules and regulations of the club and will abide by them as amended

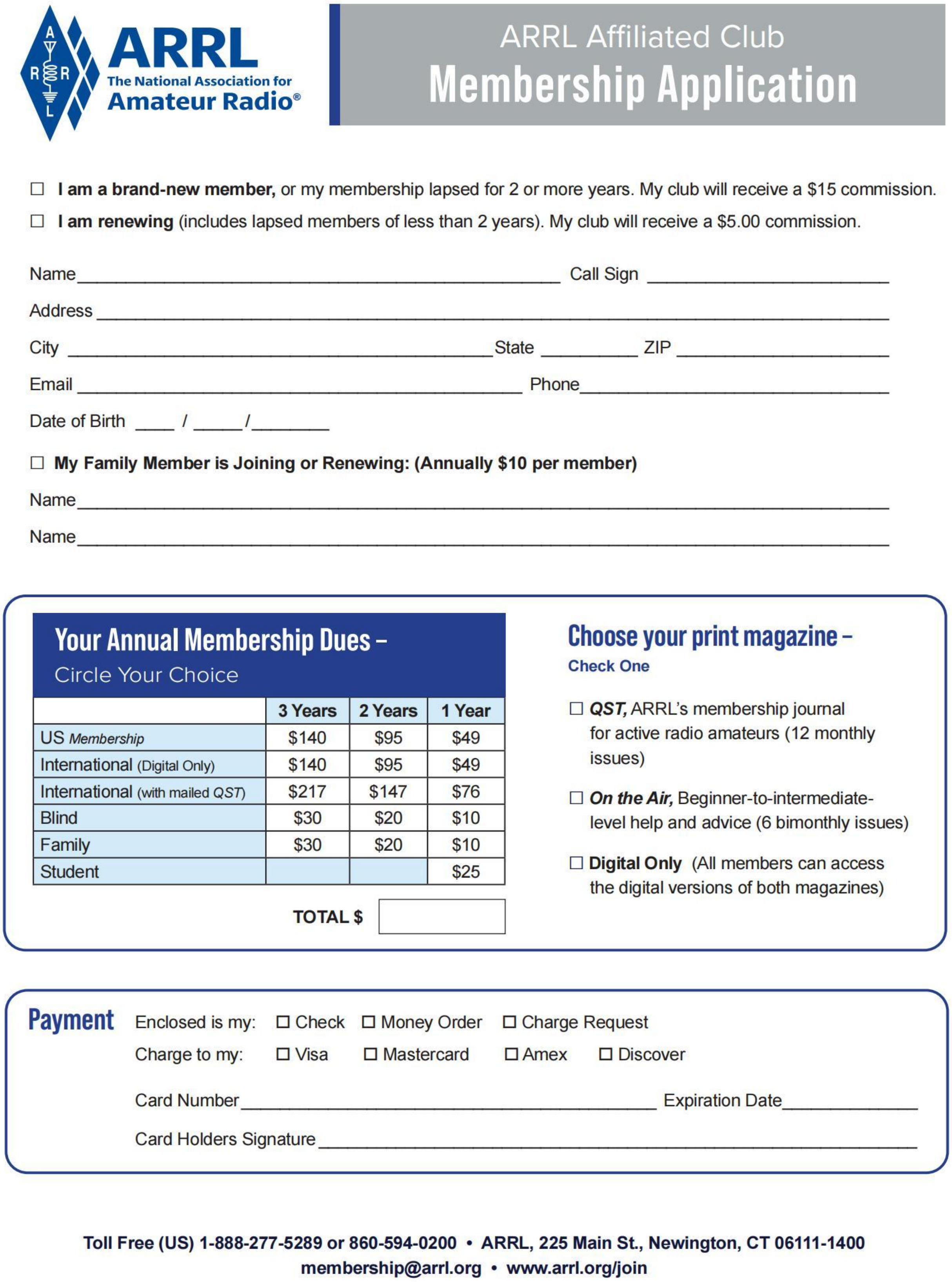
Please Note: Memberships are NOT Pro-Rated. Membership is from Jan 1st to Dec. 31st of any given year unless documented otherwise.

Please make your dues check payable to the "Fair Lawn Amateur Radio Club" **and remit to the following address:**

Fair Lawn Amateur Radio Club
Bruce Kalogera NJ2BK
163 Meadow Lane
Secaucus, NJ 07094

Mail sent to the clubhouse will be delayed due to Covid. See website for other membership options.

Complete this form for NEW or RENEWAL ARRL membership and give to FLARC Treasurer [Bruce Kalogera NJ2BK] with your payment check.



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The National Association for
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ARRL Affiliated Club
Membership Application

☐ **I am a brand-new member,** or my membership lapsed for 2 or more years. My club will receive a $15 commission.

☐ **I am renewing** (includes lapsed members of less than 2 years). My club will receive a $5.00 commission.

Name____ Call Sign ____________________

Address ____

City ___________________________________State _______ ZIP ________________

Email _____________________________________ Phone________________________

Date of Birth ____ / _____/________

☐ **My Family Member is Joining or Renewing: (Annually $10 per member)**

Name____

Name____

Your Annual Membership Dues –
Circle Your Choice

	3 Years	2 Years	1 Year
US *Membership*	$140	$95	$49
International (Digital Only)	$140	$95	$49
International (with mailed *QST*)	$217	$147	$76
Blind	$30	$20	$10
Family	$30	$20	$10
Student			$25

TOTAL $ ________

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Check One

☐ ***QST,*** ARRL's membership journal for active radio amateurs (12 monthly issues)

☐ ***On the Air,*** Beginner-to-intermediate-level help and advice (6 bimonthly issues)

☐ **Digital Only** (All members can access the digital versions of both magazines)

Payment

Enclosed is my: ☐ Check ☐ Money Order ☐ Charge Request
Charge to my: ☐ Visa ☐ Mastercard ☐ Amex ☐ Discover

Card Number____________________________________ Expiration Date____________

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Toll Free (US) 1-888-277-5289 or 860-594-0200 • ARRL, 225 Main St., Newington, CT 06111-1400
membership@arrl.org • www.arrl.org/join

February 2023
FLARC Business Meeting

FLARC Business Meeting Agenda

February 3, 2023
TIME: 7:30 PM

1. Call to Order
2. Pledge of Allegiance to the Flag of the United States
3. Roll call of officers

DAVE KD2JIP	**P**	
DAVID KD2MOB	**P**	
BRUCE NJ2BK	**P**	
LEE KD2DRS	**P**	
Trustees:		
FRED WAWRA W2ABE	**P**	
BRIAN KD2KLN	**P**	
STEVE KA2YRA	**A**	**[medical]**

Quorum established.

4. Reading and approval of Board Meeting Minutes – motion to accept

   Motion NOMAR NP4H

   2^ND^ KD2BRV SKIP

   Unanimous approval

5. Reports of officers
   a. President Dave Corsello KD2JIP

      Commented that Winter Field day was well done!

      i. Roles and responsibilities for Social Media editors –

         BRIAN DUDDY N2BTD has joined the social media committee

         as a FaceBook and Instagram editor

      ii. Drafting rules related to call sign usage assigned to the Technical Committee

      iii. Assistance for Joseph Breczinski KA5MLD was referred to Alan Woelke W2AEW

   b. Vice President David Gotlib KD2MOB - no report

   c. Secretary Lee Smith KD2DRS -no report

6. Treasurer Bruce Kalogera NJ2BK

   2 bills outstanding

   Annual Fee for Quicken: $44.65

   Winter Field Day Food: $199.29

Continued on next page.

February 2023 FLARC Business Meeting, continued

Motion NOMAR NP4H
2ND BRIAN KD2KLN
Unanimous approval

7. Reports of committees
    a. Field Day (Noel W2MSA)

Over 20 people participated during the weekend, everyone was on the air. 3 people stayed overnight, and there was experimentation with set-ups and antennas. Winlink and a QRP station. Expenses were under budget.

STEVE WI2W –Stated that is was incredible fun. Thanks to GENE WO2W for reserving the park, the shelter, and ensuring the bathroom was open.

NOMAR NP4H stated, "CW AND SSB CAN LIVE IN THE SAME AREA"

    b. Member Services / Health and Welfare (Judith KC2LTM)

Two sympathy cards sent during past month.

    c. Marketing / Programming (Ed WX2R)

February 2023 Board Meeting Marketing Committee Report

Kawfee Tawks
We have four programs scheduled for 2023.

February 17, 2023	Ron Block	NR2B	Grounding The Ham Radio Shack
March 17, 2023	Ed Efchak	WX2R	The 2023 FLARC Member Survey
April 21, 2023	**Dave deCoons WO2X**	WO2X	Understanding and Operating the Flex Radios
May 12, 2023	Ron Wilcox	KF7ZN	A Visit to the Sun and the Ionosphere

Continued on next page.

February 2023 FLARC Business Meeting, continued

Events

Earth Day at Great Falls National Historical Park – Wednesday, May 24, 2023*
Motion DAVE KD2MOB
2ND NOMAR NP4H
Unanimous approval

World Amateur Radio Day-- Tuesday, April 18* AT THE CLUB HOUSE 2-8PM
Motion DAVE KD2MOB
2ND LEE KD2DRS
Unanimous approval

W1AW/2 VOTA station—Week of August 9, 2023*
Mid-afternoon to evening, Wed. thru Tuesday. Can operate from home, but only with coordination.
Jim W2JC stated that logging will be very important – especially for those who work us.
Motion NOEL W2MSA
2ND BRIAN KD2KLN
Unanimous approval

The Great American Eclipse: October 14, 2023 QSO Party and WSPR participation

(Fair Lawn)
Partial solar eclipse visible (22.87% coverage of Sun)
Magnitude: 0.347
Duration:2 hours, 27 minutes, 1 second
Partial begins:Oct 14, 2023 at 12:08:39 pm
Maximum:Oct 14, 2023 at 1:22:00 pm
Partial ends:Oct 14, 2023 at 2:35:40 pm
Times shown in local time (EDT)

Motion NOMAR NP4H
2nd SKIP KD2BRV
Unanimous approval

Community Relations

Fair Lawn Street Fairs: ED WX2R is the liaison.
June 4 and Oct 15
Motion NOMAR NP4H
2ND THOM W2NZ
Unanimous approval.

Other

West Palm Beach club partnership
ED WX2R attended their meeting.
He suggests a Zoom meeting with them.
They are growing greatly like us.
Youth is important to them as it is us.
LEE KD2DRS already reached out to their Youth chairman
They are interested in how we do POTA in a SIG.
He is meeting their president and setting the common date for a Zoom Call
They are looking for ideas of the engagement of members.
They get together monthly for a portable day.

February 2023 FLARC Business Meeting, continued

SATURDAY FEB 25TH, ED is requesting that we operate the club to contact them.
HOURS 11-1PM
M NOEL W2MSA
2ND DAVE KD2JIP
Unanimous approval

KARL W2KBF---COMMENTS—
Gloucester wanted to know how to do a good questionnaire and ED WX2R helped them greatly.

d. Video / YouTube (Thom W2NZ)

Last month, 1038 subscribers, views 1500 views

#1 HOW TO LEARN AND HAVE FUN WITH MORSE CODE.

Bob Zanotti HB9ASQ—working to bring forth a quality product

for the club His Presentation

e. Social Media (Brian N2BTD, David NK2Q)

Report was sent in from BRIAN N2BTD.

Our Winter Field Day starting post had 31 Likes, 5 Comments & 1 share.
Our Winter Field Day ending post had 25 Likes, 1 comment & 4 shares.

Tags and Hashtags are important to our Social media posts

DAVE KD2JIP set-up a link between Facebook and Instagram but it is not working, BRIAN N2BTD is still working on this.

f. Community Relations (Gene WO2W, David KD2MOB)

Submitted dates for Field Day and Hamfest to the Fair Lawn Parks, we have approval. Hamfest / Auction (Gene WO2W, Bruce NJ2BK) DO NEED A CHAIRMAN FOR THE AUCTION, BILL WILL NOT CONTINUE NOMAR N4PH has volunteered as co-chair for the Hamfest

g. Education (Bill NB1LL, Skip KD2BRV) NO REPORT

h. Nets (Brian KD2KLN) Running regularly on Monday nights

i. Contests (Van W2DLT) concentrating on Bouvet and upcoming contests

j. Website (Jim W2JC)

Log for Winter Field day sent in, over 650 QSOs

QSL CARDS, got a pack of cards in from the Incoming International Bureau.

A sample of the cards received was passed around the meeting room.

QRZ log has 11,780 QSOs, but only 1,923 are confirmed. This suggests a lot

February 2023 FLARC Business Meeting, continued

of errors in our logging info.

Please use the Logging Software, but all contacts MUST be in the paper logbooks.

Groups IO, almost all members belong to them.

SLACK channel, very active, more like a real time chat.

k. Technical Committee (Paul Cornett W2IP, Fred W2ABE) NO REPORT

l. RACES / ARES (David KD2MOB, Steve WA2BYX)

ARES—American Red Cross, BILL NB1LL activity

RACES- Bergen County Tomorrow on VHF and HF last about 1 hour

Fair Lawn is the net control for this Wednesday

m. VE sessions (GENE WO2W)

n. Youth Committee (Lee Smith KD2DRS)

We're having a meeting on next Thursday to go over the plan.

Feb 24th	BSA at FLARC
Mar 4th	Ridgewood Science Day.

PROMOTION OF PRESENT ACTIVITIES VERY IMPORTANT

o. Grant Committee (Bruce Kalogera NJ2BK) NONE

p. Bylaws Committee (David KD2MOB) MTG on Tuesday, 2/7

q. Special Interest Groups NONE

8. Unfinished business
   a. Business Continuity (Dave KD2JIP)
      i. 5G Hotspot – in progress, most likely under budget
      ii. Zoom account for president@fairlawnarc.org – in progress $149/ YEAR
         1. Expense could be covered by excess from internet budget
      iii. Cloud repository for club documents – not started
      iv. Procedures for club officer transition meetings – not started
   b. Bouvet Island `3Y0J` event
      i. Setting up the club's linear PA with a Flex radio and testing;
         This needs to be cleared with PAUL / TECH COMMITTEE
         1. Schedule club openings
            Fred W2AAB can work Bouvet at the club, so the club gets DXCC credit.
         2. Dates using our equipment
         3. Potential dates for Jim KB2FMH to set up his 1500W station.
      ii. Field trip to Ten Mile River Scout Camps in Narrowsburg, NY

February 2023 FLARC Business Meeting, continued

to see KB2FMH operate Bouvet

1. Bill Leger WA2WL
2. Vlad Goldstein AD2BS
3. Lee KD2DRS

9. New Business
    a. Cables on roof are cracked, STEVE WA2BYX
    b. BRIAN KD2KLN, we need to complete an inventory of the antennas
    c. Discussion of replacing HF BEAM STEVE WI2W

    STEVE / DISCUSSION OF THE NEED FOR NEW ANTENNAS
    d. InfoAge field trip A LOT OF OUTDOOR THINGS TO SEE
10. Closing remarks from the President
11. Adjournment – motion to close.
    TIME: 8:40PM
    Motion NOMAR N4PH
    2ND BRIAN KD2KLN

2022-2023 FLARC ACTIVITY CALENDAR

Tuesday	April 18, 2023	World Amateur Radio Day
Wednesday	May 24, 2023	Earth Day at Great Falls, Paterson, NJ
Sunday	June 4, 2023	Radburn Street Fair
Saturday	June 10th, 2023	FLARC Hamfest
Weekend	June 24 – 25, 2023	Field Day 2023
Week of	August 9 - 15, 2023	ARRL W1AW/2 VOTA participation
Saturday	October 14, 2023	HAMSCI SEQP Eclipse Project
Sunday	October 15, 2023	River Road Street Fair

If in doubt about any event, consult calendar at https://fairlawnarc.groups.io/g/main/calendar

Past FLARC Member Profiles

Here is a list of past member features and we welcome your recommendations for new profiles -- including your own.

Month	Name	Call Sign
January 2016	**Pete**	**KB2BMX**
February	**Marco**	**KC2ZMA**
March	**Ron**	**KC2TBD**
April	**Kai**	**K2TRW**
May	**Larry**	**WA2ALY**
June	**Dave**	**N8MAR**
July	**Steve**	**WI2W**
August	**Thom**	**W2NZ**
September	**Brian**	**KD2KLN**
October	**Brad**	**KM2C**
November	**Al**	**WA2OWL**
December	**George**	**W3EH**
January 2017	**Fred**	**W2ABE**
February	**Dave**	**KD2MOB**
March	**Randy**	**WU2S**
April	**Lee**	**KD2DRS**
May	**Gene**	**WO2W**
June	**Carol**	**KD2NMV**
July	**Kevin**	**KC2KCC**
August	**Robert**	**KD2NOG**
September	**Robert**	**KD2BKD**
October	**John**	**KD2NRS**
November	**Fred**	**W2AAB**
December	**Margaret**	**W2GB**
January 2018	**Brian**	**KD2OAZ**
February	**Bennett**	**KO2OK**
March	**Van**	**W2DLT**
April	**Aly**	**AL0Y**
May	**Bruce**	**NJ2BK**
June	**Dave**	**N2AAM**
July	**Karl and Susan**	**W2KBF and W2SKT**
August	**Steve**	**KA2YRA**
September	**Paul**	**K2PJC**
October	**Skip**	**KD2BRV**
November	**Jim**	**W2JC**
December	**Tom**	**N2AAX**

By the way, Randy (WU2S) has compiled a binder of all back issues of *The Resonator* and it's located in the club office.
Thanks Randy!!!

2019-20 Member Profiles

The year is now complete and here is a list of the 2019 monthly profiles. See past profiles elsewhere in *The Resonator* to check back in the archives to see each featured member's background.

Month	Name	Call Sign
January 2019	**Dave**	**KD2JIP**
February	**Jim**	**K2ZO**
March	**Zach**	**KC2RSS**
April	**Bob**	**N2SU**
May	**Stan**	**KC2K**
June	**Steve**	**WA2BYX**
July	**Roger**	**K2RRB**
August	**Judith**	**KC2LTM**
September	**Chris**	**W2TU**
October	**Bob**	**N2SU**
November	**Bob**	**WA2ISE**
December	**Carol**	**KD2NMV**
January 2020	**Gordon**	**W2TTT**
February	**Chris**	**KD2JQZ**
March	**Glenn**	**KD2MDR**
April	**Steve**	**K2SAB**
May	**Ahmed**	**NJ8Y**
June	**Charlie**	**AC2ZU**
July	**Jim**	**N2JLF**
August	**Walt**	**K3DQB**
September	**Gregg**	**N2ECH**
October	**Jim**	**W2KNG**
November	**Dave**	**KD2SGM**
December	**Bill**	**NB1ILL**

2021 Member Profiles

Here is a list of the 2021 monthly profiles.

Month	Name	Call Sign
January 2021	**Ed**	**KD2TVT**
February	**John**	**W2USN**
March	**Noel**	**W2MSA**
April	**Gene**	**KD2VNI**
May	**Berlotte**	**KD2MYF**
June	**Noel**	**N2OEL**
July	**Roy**	**KD2VMX**
August	**Jeremy**	**K2GRI**
September	**Bill**	**WA2WL**
October	**Nomar**	**NP4H**
November	**David**	**AC2GL**
December	**Paul Brennan**	**N6FB/M0JOV**